=> FILE BIOSIS
FILE 'BIOSIS' ENTERED AT 16:50:01 ON 08 DEC 2006

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 6 December 2006 (20061206/ED)

=> D QUE L124
L96 (1188) SEA FILE=BIOSIS ABB=ON PLU=ON ACETYL L CARNITINE OR ACETYLCAR NITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L97 (1963) SEA FILE=BIOSIS ABB=ON PLU=ON LIPOIC ACID OR BYODINOR AL 300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACID
L98 (255) SEA FILE=BIOSIS ABB=ON PLU=ON THIOCTIC ACID OR THIOGAMMA OR TIOBEC
L99 (82337) SEA FILE=BIOSIS ABB=ON PLU=ON GLUTATHIONE OR AGIFUTOL S OR BAKEZYME RX OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIO NE SH OR GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHION E OR GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED GLUTATHIONE OR TATHION OR TATHIONE OR TRIPTIDE
L100(6263) SEA FILE=BIOSIS ABB=ON PLU=ON COENZYME Q10 OR CO ENZYME Q10AQUA Q 10L10 OR BIO QUINON OR BIO QUINONE Q10 OR COQ10 OR ENSOR B OR KANEKA Q10 OR KUDESAN OR NEUQUINON OR NEUQUINONE OR NSC 140865 OR Q 10AA OR Q GEL 100 OR UBIDECARENONE OR UBIQUINON E
L101(12557) SEA FILE=BIOSIS ABB=ON PLU=ON N ACETYLCYSTEINE OR N ACETYL CYSTEINE OR ACC OR ACETILCYSTEINA OR ACETYLCYSTEINE OR AIRBRON OR BRONCHOLYSIN OR BRONCHOLYSIN OR BRUNAC OR EXOMUC OR FABROL OR FLUATOX OR FLUIBIOTIC OR FLUIMICIL OR FLUIMICIL INFANTIL OR FLUIMUCETIN
L102(766) SEA FILE=BIOSIS ABB=ON PLU=ON FLUIMUCIL OR FLUMIL OR FLUPROWIT OR HYPOTEARS OR L ACETYLCYSTEINE OR L N ACETYLCYSTEIN E OR MERCAPTURIC ACID OR MERCAPTURIC ACID OR MUCO SANIGEN OR MUCOCEDYL OR MUCOFILIN OR MUCOLATOR OR MUCOLYTICUM
L103(7061) SEA FILE=BIOSIS ABB=ON PLU=ON MUCOLYTICUM LAPPE OR MUCOLYTIKU M LAPPE OR MUCOMYST OR MUCOSOLVIN OR MUCRET OR N ACETYL R CYSTEINE OR N ACETYL L CYSTEINE OR N ACETYLCYSTEINE OR NA ACETYLCYSTEINE OR NEO FLUIMUCIL OR NSC 111180 OR PARVOLEXS
L104(189835) SEA FILE=BIOSIS ABB=ON PLU=ON ZINC OR ZN OR ((F)(W)(1000 OR 1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE
L105(18553) SEA FILE=BIOSIS ABB=ON PLU=ON FLAVONOID OR BIOFLAVONOID OR ((PHENYL)(W)(BENZOPYRANS OR CHROMENES))
L106(24840) SEA FILE=BIOSIS ABB=ON PLU=ON VITAMIN E OR AQUASOL E OR E MIX 40 OR E MIX 70L OR EREVIT FORTE OR EVION OR FUJIMIX E 20N OR HYDROVIT E FORTE OR IRGANOX E 217 OR IRGANOX E 218 OR JUVELA E OR JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN E OIL 100 OR ROCAVIT E
L107(3) SEA FILE=BIOSIS ABB=ON PLU=ON RONTEX 201 OR SUNACTIVE VE OR SURSUM
L108(3273) SEA FILE=BIOSIS ABB=ON PLU=ON VITAMIN B6 OR ADERMINE OR VITAMIN H
L109(25903) SEA FILE=BIOSIS ABB=ON PLU=ON L ASCORBIC ACID OR 3 KETO L GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR

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                ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR
                ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP
L110(       318)SEA FILE=BIOSIS ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR
                ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR
                CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR
                CEBICURE
L111(      3566)SEA FILE=BIOSIS ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR
                CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C
                OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR
                CETAMID OR CETANE
L112(     15732)SEA FILE=BIOSIS ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR
                CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR
                CEVITAL OR CEVITAMIC ACID OR VITAMIN C
L113(     11952)SEA FILE=BIOSIS ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTEN
                E OR BETAVIT OR C I  40800
L114(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE 80S
                OR KPMK OR LUCARATIN OR LUCAROTIN OR LUROTIN OR NSC 62794 OR
                PROVATENE OR PROVATENOL OR SERLABO OR SOLATENE
L115(       341)SEA FILE=BIOSIS ABB=ON  PLU=ON  KAISER J?/AU
L116(    103117)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L96 OR L97 OR L98 OR L99 OR
                L100 OR L101 OR L102 OR L103)
L117(     91598)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L105 OR L106 OR L107 OR L108
                OR L109 OR L110 OR L111 OR L112 OR L113 OR L114)
L118(         0)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116 AND L104 AND
                L117
L119(         0)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116 AND L117
L120(         1)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116
L121(         2)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L117
L122(         8)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L104
L123(        11)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L118 OR L119 OR L120 OR L121
                OR L122)
L124         10 SEA FILE=BIOSIS ABB=ON  PLU=ON  L123 NOT (BACILLUS SUBTILIS
                TYPE II ISOPENTENYL DIPHOSPHATE ISOMERASE)/TI


=> FILE EMBASE
FILE 'EMBASE' ENTERED AT 16:50:11 ON 08 DEC 2006
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 FILE COVERS 1974 TO 8 Dec 2006 (20061208/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> D QUE L150
L125(       419)SEA FILE=EMBASE ABB=ON  PLU=ON  BIOFLAVONOID/CT
L126(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L127(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L128(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L129(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L130(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L131(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L132(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L133(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L134(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
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L135(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L136(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L137(        10)SEA FILE=EMBASE ABB=ON  PLU=ON  L135 AND L133 AND L136
L138(       799)SEA FILE=EMBASE ABB=ON  PLU=ON  KAISER J?/AU
L139(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L137
L140(     67925)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L126 OR L127 OR L128) OR
                L134)
L141(     68249)SEA FILE=EMBASE ABB=ON  PLU=ON  (L140 OR L125)
L142(     49611)SEA FILE=EMBASE ABB=ON  PLU=ON  (L129 OR L130)
L143(     42496)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L135 OR L132 OR L131 OR L133
                OR L136))
L144(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L141 AND L142 AND
                L143
L145(    684624)SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L146(    347659)SEA FILE=EMBASE ABB=ON  PLU=ON  NUTRIENT+NT/CT
L147(         1)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L145 AND L146 AND
                (L141 OR L142 OR L143)
L148(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L146 AND (L141 OR
                L142 OR L143)
L149(         1)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L145 AND (L141 OR
                L142 OR L143)
L150          2 SEA FILE=EMBASE ABB=ON  PLU=ON  (L144 OR L147 OR L139 OR L148
                OR L149)


=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 16:50:23 ON 08 DEC 2006
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FILE COVERS 1907 - 8 Dec 2006  VOL 145 ISS 25
FILE LAST UPDATED: 7 Dec 2006  (20061207/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L175
L151(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L152(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L153(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L154(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L155(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L156(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L157(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L158(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
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L159(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L160(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L161(       999)SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAISER J?/AU
L162(     48589)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L151 OR L152 OR L153 OR
                 L154)
L163(    345705)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L155 OR L156)
L164(     59447)SEA FILE=HCAPLUS ABB=ON  PLU=ON  FLAVONOIDS+OLD,NT/CT
L165(       405)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L164(L)BIOFLAV?/OBI
L166(    174868)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L157 OR L158 OR L159 OR L160
                 OR L164)
L167(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L162 AND L163 AND
                 L165
L168(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L166
L169(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L162
L170(        11)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L163
L171(        11)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L167 OR L168 OR L169 OR
                 L170)
L172(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L173(      6706)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L172
L174(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L173
L175         11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L171 OR L174


=> FILE MEDLINE
FILE 'MEDLINE' ENTERED AT 16:50:39 ON 08 DEC 2006

 FILE LAST UPDATED: 7 Dec 2006 (20061207/UP).  FILE COVERS 1950 TO DATE.

  In preparation for the annual MEDLINE reload, the National Library of
  Medicine (NLM) has suspended delivery of regular updates as of November
  15, 2006.  In-process and in-data-review records will resume delivery
  on November 21, 2006, and will continue to be added to MEDLINE until
  December 17, 2006.

  On December 17, 2006, all regular MEDLINE updates from November 15 to
  December 16 will be added to MEDLINE, along with 2007 Medical Subject
  Headings (MeSH(R)) and 2007 tree numbers.

  The annual reload will be available in early 2007.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> D QUE L199
L176(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L177(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L178(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L179(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L180(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L181(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L182(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L183(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L184(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L185(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L186(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L187(     34026)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOIDS+NT/CT
L188(      4488)SEA FILE=MEDLINE ABB=ON  PLU=ON  L185
L189(     19311)SEA FILE=MEDLINE ABB=ON  PLU=ON  L182
L190(      1156)SEA FILE=MEDLINE ABB=ON  PLU=ON  L183
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L191(     28079)SEA FILE=MEDLINE ABB=ON  PLU=ON  L184
L192(     46858)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L180 OR L181)
L193(     37527)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L186 OR L176 OR L177 OR L178
                OR L179)
L194(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL
                300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACIDOR THIOCTIC
                ACID OR THIOGAMMA OR TIOBEC
L195(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR
                ACETYLCARNITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE
                ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR
                NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L196(       638)SEA FILE=MEDLINE ABB=ON  PLU=ON  KAISER J?/AU
L197(    737843)SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L198(        17)SEA FILE=MEDLINE ABB=ON  PLU=ON  L196 AND L197
L199          1 SEA FILE=MEDLINE ABB=ON  PLU=ON  L198 AND (((L187 OR L188 OR
                L189 OR L190 OR L191)) OR L192 OR ((L193 OR L194 OR L195)))


=> D QUE L229
L200(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR
                ACETYLCARNITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE
                ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR
                NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L201(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL
                300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACID
L202(      2025)SEA FILE=MEDLINE ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR
                TIOBEC
L203(     73792)SEA FILE=MEDLINE ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR
                BAKEZYME RX OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIO
                NE SH OR GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHION
                E OR GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED
                GLUTATHIONE OR TATHION OR TATHIONE OR TRIPTIDE
L204(      6758)SEA FILE=MEDLINE ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME
                Q10AQUA Q 10L10 OR BIO QUINON OR BIO QUINONE Q10 OR COQ10 OR
                ENSOR B OR KANEKA Q10 OR KUDESAN OR NEUQUINON OR NEUQUINONE OR
                NSC 140865 OR Q 10AA OR Q GEL 100 OR UBIDECARENONE OR UBIQUINON
                E
L205(     12418)SEA FILE=MEDLINE ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL
                CYSTEINE OR ACC OR ACETILCYSTEINA OR ACETYLCYSTEINE OR AIRBRON
                OR BRONCHOLYSIN OR BRONCHOLYSIN OR BRUNAC OR EXOMUC OR FABROL
                OR FLUATOX OR FLUIBIOTIC OR FLUIMICIL OR FLUIMICIL INFANTIL OR
                FLUIMUCETIN
L206(       709)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLUIMUCIL OR FLUMIL OR
                FLUPROWIT OR HYPOTEARS OR L-ACETYLCYSTEINE OR L-N-ACETYLCYSTEIN
                E OR MERCAPTURIC ACID OR MERCAPTURIC ACID OR MUCO SANIGEN OR
                MUCOCEDYL OR MUCOFILIN OR MUCOLATOR OR MUCOLYTICUM
L207(      6869)SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCOLYTICUM LAPPE OR MUCOLYTIK
                UM LAPPE OR MUCOMYST OR MUCOSOLVIN OR MUCRET OR N ACETYL(2A)CYS
                TEINE OR N ACETYL L CYSTEINE OR N ACETYLCYSTEINE OR N ALPHA
                ACETYLCYSTEINE OR NEO FLUIMUCIL OR NSC 111180 OR PARVOLEX
L208(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  RESPAIRE OR SYNTEMUCOL OR
                TIXAIR
L209(    322532)SEA FILE=MEDLINE ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR
                1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE
L210(     19771)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOID OR BIOFLAVONOID OR
                ((PHENYL)(W)(BENZOPYRANS OR CHROMENES))
L211(     25881)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN E OR AQUASOL E OR E
                MIX 40 OR E MIX 70L OR EREVIT FORTE OR EVION OR FUJIMIX E 20N
                OR HYDROVIT E FORTE OR IRGANOX E 217 OR IRGANOX E 218 OR
                JUVELA E OR JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN
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                E OIL 100 OR ROCAVIT E
L212(          4)SEA FILE=MEDLINE ABB=ON  PLU=ON  RONTEX 201 OR SUNACTIVE VE
                  OR SURSUM
L213(       6189)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN B6 OR ADERMINE OR
                  VITAMIN H OR VITAMINB6 OR VITAMIN B 6
L214(      34014)SEA FILE=MEDLINE ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L
                  GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR
                  ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR
                  ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP
L215(         62)SEA FILE=MEDLINE ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR
                  ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR
                  CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR
                  CEBICURE
L216(       1045)SEA FILE=MEDLINE ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR
                  CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C
                  OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR
                  CETAMID OR CETANE
L217(      12947)SEA FILE=MEDLINE ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR
                  CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR
                  CEVITAL OR CEVITAMIC ACID OR VITAMIN C
L218(       7825)SEA FILE=MEDLINE ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTE
                  NE OR BETAVIT OR C I 40800
L219(          2)SEA FILE=MEDLINE ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE
                  80S OR KPMK OR LUCARATIN OR LUCAROTIN
L220(          0)SEA FILE=MEDLINE ABB=ON  PLU=ON  LUROTIN OR NSC 62794 OR
                  PROVATENE OR PROVATENOL
L221(          1)SEA FILE=MEDLINE ABB=ON  PLU=ON  SERLABO OR SOLATENE
L222(        638)SEA FILE=MEDLINE ABB=ON  PLU=ON  KAISER J?/AU
L223(      93944)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L200 OR L201 OR L202 OR L203
                  OR L204 OR L205 OR L206 OR L207 OR L208)
L224(      89206)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L210 OR L211 OR L212 OR L213
                  OR L214 OR L215 OR L216 OR L217 OR L218 OR L219 OR L220 OR
                  L221)
L225(     631889)SEA FILE=MEDLINE ABB=ON  PLU=ON  FOOD+NT/CT
L226(         22)SEA FILE=MEDLINE ABB=ON  PLU=ON  L222 AND L225
L227(          1)SEA FILE=MEDLINE ABB=ON  PLU=ON  L226 AND ((L223 OR L224 OR
                  L209))
L228(         14)SEA FILE=MEDLINE ABB=ON  PLU=ON  L222 AND ((L223 OR L224 OR
                  L209))
L229          14 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L227 OR L228)


=> FILE WPIX
FILE 'WPIX' ENTERED AT 16:52:22 ON 08 DEC 2006
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FILE LAST UPDATED:                          4 DEC 2006   <20061204/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200678      <200678/DW>
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'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D QUE L258
L230(218) SEA FILE=WPIX ABB=ON PLU=ON ACETYL L CARNITINE/BI,ABEX OR ACETYLCARNITINE/BI,ABEX OR ALCAR/BI,ABEX OR L ACETYLCARNITINE/BI,ABEX OR L CARNITINE ACETYL ESTER/BI,ABEX OR L O ACETYLCARNITINE/BI,ABEX OR LEVOCARNITINE ACETYL/BI,ABEX OR NICETILE/BI,ABEX OR O ACETYL L CARNITINE/BI,ABEX OR O ACETYLCARNITINE/BI,ABEX
L231(1049) SEA FILE=WPIX ABB=ON PLU=ON LIPOIC ACID/BI,ABEX OR BYODINORAL 300/BI,ABEX OR D THIOCTIC ACID/BI,ABEX OR LIPOEC/BI,ABEX OR LIPOIC ACID/BI,ABEX
L232(157) SEA FILE=WPIX ABB=ON PLU=ON THIOCTIC ACID/BI,ABEX OR THIOGAMMA/BI,ABEX OR TIOBEC/BI,ABEX
L233(5016) SEA FILE=WPIX ABB=ON PLU=ON GLUTATHIONE/BI,ABEX OR AGIFUTOLS/BI,ABEX OR BAKEZYME RX/BI,ABEX OR COPREN/BI,ABEX OR DELTATHIONE/BI,ABEX OR GLUTATHION/BI,ABEX OR GLUTATHIONE SH/BI,ABEX OR GLUTIDE/BI,ABEX OR GLUTINAL/BI,ABEX OR GSH/BI,ABEX OR ISETHION/BI,ABEX OR L GLUTATHIONE/BI,ABEX OR GLUTAMYL L CYSTEINYL GLYCINE/BI,ABEX OR NEUTHION/BI,ABEX OR REDUCED GLUTATHIONE/BI,ABEX OR TATHION/BI,ABEX OR TATHIONE/BI,ABEX OR TRIPTIDE/BI,ABEX
L234(1644) SEA FILE=WPIX ABB=ON PLU=ON COENZYME Q10/BI,ABEX OR COENZYME Q10AQUA Q 10L10/BI,ABEX OR BIO QUINON/BI,ABEX OR BIO QUINONE Q10/BI,ABEX OR COQ10/BI,ABEX OR ENSOR B/BI,ABEX OR KANEKA Q10/BI,ABEX OR KUDESAN/BI,ABEX OR NEUQUINON/BI,ABEX OR NEUQUINONE/BI,ABEX OR NSC 140865/BI,ABEX OR Q 10AA/BI,ABEX OR Q GEL 100/BI,ABEX OR UBIDECARENONE/BI,ABEX OR UBIQUINONE/BI,ABEX
L235(2859) SEA FILE=WPIX ABB=ON PLU=ON N ACETYLCYSTEINE/BI,ABEX OR N ACETYL CYSTEINE/BI,ABEX OR ACC/BI,ABEX OR ACETILCYSTEINA/BI,ABEX OR ACETYLCYSTEINE/BI,ABEX OR AIRBRON/BI,ABEX OR BRONCHOLYSIN/BI,ABEX OR BRONCHOLYSIN/BI,ABEX OR BRUNAC/BI,ABEX OR EXOMUC/BI,ABEX OR FABROL/BI,ABEX OR FLUATOX/BI,ABEX OR FLUIBIOTIC/BI,ABEX OR FLUIMICIL/BI,ABEX OR FLUIMICIL INFANTIL/BI,ABEX OR FLUIMUCETIN/BI,ABEX
L236(19) SEA FILE=WPIX ABB=ON PLU=ON FLUIMUCIL/BI,ABEX OR FLUMIL/BI,ABEX OR FLUPROWIT/BI,ABEX OR HYPOTEARS/BI,ABEX OR L ACETYLCYSTEINE/BI,ABEX OR L N ACETYLCYSTEINE/BI,ABEX OR MERCAPTURIC ACID/BI,ABEX OR MERCAPTURIC ACID/BI,ABEX OR MUCO SANIGEN/BI,ABEX OR MUCOCEDYL/BI,ABEX OR MUCOFILIN/BI,ABEX OR MUCOLATOR/BI,ABEX OR MUCOLYTICUM/BI,ABEX
L237(766) SEA FILE=WPIX ABB=ON PLU=ON MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI,ABEX OR MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR NA ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR

NSC 111180/BI,ABEX OR PARVOLEXS/BI,ABEX

L238(766) SEA FILE=WPIX ABB=ON PLU=ON MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI, ABEX OR MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR N ALPHA ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR NSC 111180/BI,ABEX OR PARVOLEXS/BI,ABEX

L239(1) SEA FILE=WPIX ABB=ON PLU=ON RESPAIRE/BI,ABEX OR SYNTEMUCOL/BI ,ABEX OR TIXAIR/BI,ABEX

L240(215087) SEA FILE=WPIX ABB=ON PLU=ON ZINC/BI,ABEX OR ZN/BI,ABEX OR ((F/BI,ABEX)(W)(1000/BI,ABEX OR 1500/BI,ABEX OR 2000/BI,ABEX)) OR MCS/BI,ABEX OR ECKA/BI,ABEX OR SELENIUM/BI,ABEX OR SE/BI,ABE X

L241(2439) SEA FILE=WPIX ABB=ON PLU=ON FLAVONOID/BI,ABEX OR BIOFLAVONOID /BI,ABEX OR ((PHENYL/BI,ABEX)(W)(BENZOPYRANS/BI,ABEX OR CHROMENES/BI,ABEX))

L242(7857) SEA FILE=WPIX ABB=ON PLU=ON VITAMIN E/BI,ABEX OR AQUASOL E/BI,ABEX OR E MIX 40/BI,ABEX OR E MIX 70L/BI,ABEX OR EREVIT FORTE/BI,ABEX OR EVION/BI,ABEX OR FUJIMIX E 20N/BI,ABEX OR HYDROVIT E FORTE/BI,ABEX OR IRGANOX E 217/BI,ABEX OR IRGANOX E 218/BI,ABEX OR JUVELA E/BI,ABEX OR JUVELA FOOD 500/BI,ABEX OR MDE 6000/BI,ABEX OR PALMVITEE/BI,ABEX OR RIKEN E OIL 100/BI,ABE X OR ROCAVIT E/BI,ABEX

L243(0) SEA FILE=WPIX ABB=ON PLU=ON RONTEX 201/BI,ABEX OR SUNACTIVE VE/BI,ABEX OR SURSUM/BI,ABEX

L244(2040) SEA FILE=WPIX ABB=ON PLU=ON VITAMIN B6/BI,ABEX OR ADERMINE/BI ,ABEX OR VITAMIN H/BI,ABEX

L245(14268) SEA FILE=WPIX ABB=ON PLU=ON L ASCORBIC ACID/BI,ABEX OR 3 KETO L GULOFURANOLACTONE/BI,ABEX OR 3 OXO L GULOFURANOLACTONE/B I,ABEX OR ADENEX/BI,ABEX OR ALLERCORB/BI,ABEX OR ANTISCORBIC VITAMIN/BI,ABEX OR ANTISCORBUTIC VITAMIN/BI,ABEX OR ASCOLTIN/BI ,ABEX OR ASCORBAJEN/BI,ABEX OR ASCORBIC ACID/BI,ABEX OR ASCORBICAP/BI,ABEX

L246(1) SEA FILE=WPIX ABB=ON PLU=ON ASCORBUTINA/BI,ABEX OR ASCORELL/B I,ABEX OR ASCORIN/BI,ABEX OR ASCORTEAL/BI,ABEX OR ASCORVIT/BI,A BEX OR C QUIN/BI,ABEX OR C VIMIN/BI,ABEX OR CANTAN/BI,ABEX OR CANTAXIN/BI,ABEX OR CATAVIN C/BI,ABEX OR CE MI LIN/BI,ABEX OR CE VI SOL/BI,ABEX OR CEBICURE/BI,ABEX

L247(2172) SEA FILE=WPIX ABB=ON PLU=ON CEBION/BI,ABEX OR CEBIONE/BI,ABEX OR CECON/BI,ABEX OR CEGIOLAN/BI,ABEX OR CEGLION/BI,ABEX OR CEKLIN/BI,ABEX OR CELASKON/BI,ABEX OR CELIN/BI,ABEX OR CELL C/BI,ABEX OR CEMAGYL/BI,ABEX OR CENETONE/BI,ABEX OR CEREON/BI,A BEX OR CERGONA/BI,ABEX OR CESCORBAT/BI,ABEX OR CETAMID/BI,ABEX OR CETANE/BI,ABEX

L248(5867) SEA FILE=WPIX ABB=ON PLU=ON CETANE CAPS TC/BI,ABEX OR CETEBE/BI,ABEX OR CETEMICAN/BI,ABEX OR CEVALIN/BI,ABEX OR CEVATINE/BI,ABEX OR CEVEX/BI,ABEX OR CEVIMIN/BI,ABEX OR CEVITAL/BI,ABEX OR CEVITAMIC ACID/BI,ABEX OR VITAMIN C/BI,ABEX

L249(2230) SEA FILE=WPIX ABB=ON PLU=ON BETA/BI,ABEX(2A)CAROTENE/BI,ABEX OR BETACAROTENE/BI,ABEX OR BETAVIT/BI,ABEX OR C I 40800/BI,ABE X

L250(2) SEA FILE=WPIX ABB=ON PLU=ON CAROTABEN/BI,ABEX OR CAROTENE BASE 80S/BI,ABEX OR KPMK/BI,ABEX OR LUCARATIN/BI,ABEX OR LUCAROTIN/BI,ABEX OR LUROTIN/BI,ABEX OR NSC 62794/BI,ABEX OR PROVATENE/BI,ABEX OR PROVATENOL/BI,ABEX OR SERLABO/BI,ABEX OR SOLATENE/BI,ABEX

L251(269) SEA FILE=WPIX ABB=ON PLU=ON KAISER J?/AU

L252(9933) SEA FILE=WPIX ABB=ON PLU=ON (L230 OR L231 OR L232 OR L233 OR L234 OR L235 OR L236 OR L237 OR L238 OR L239)

L253(30659) SEA FILE=WPIX ABB=ON PLU=ON (L241 OR L242 OR L243 OR L244 OR

```
                L245 OR L246 OR L247 OR L248 OR L249 OR L250)
L254(          1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L240 AND L252 AND L253
L255(          6)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L240
L256(          1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L252 AND L253
L257(          1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L253
L258           6 SEA FILE=WPIX ABB=ON  PLU=ON  (L254 OR L255 OR L256 OR L257)


=> DUP REM L199 L229 L124 L150 L175 L258
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FILE 'BIOSIS' ENTERED AT 16:56:31 ON 08 DEC 2006
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PROCESSING COMPLETED FOR L229
PROCESSING COMPLETED FOR L124
PROCESSING COMPLETED FOR L150
PROCESSING COMPLETED FOR L175
PROCESSING COMPLETED FOR L258
L259           29 DUP REM L199 L229 L124 L150 L175 L258 (15 DUPLICATES REMOVED)
                  ANSWERS '1-14' FROM FILE MEDLINE
                  ANSWERS '15-17' FROM FILE BIOSIS
                  ANSWERS '18-19' FROM FILE EMBASE
                  ANSWERS '20-26' FROM FILE HCAPLUS
                  ANSWERS '27-29' FROM FILE WPIX

=> => FILE BIOSIS
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CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 6 December 2006 (20061206/ED)


=> D QUE L292
L260(       1188)SEA FILE=BIOSIS ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCAR
                 NITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE ACETYL
                 ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR
                 NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L261(       1963)SEA FILE=BIOSIS ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
                 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACID
L262(        255)SEA FILE=BIOSIS ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR
                 TIOBEC
L263(      82337)SEA FILE=BIOSIS ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR
                 BAKEZYME RX OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIO
                 NE SH OR GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHION
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E OR GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED GLUTATHIONE OR TATHION OR TATHIONE OR TRIPTIDE

L264 (6263) SEA FILE=BIOSIS ABB=ON PLU=ON COENZYME Q10 OR CO ENZYME Q10AQUA Q 10L10 OR BIO QUINON OR BIO QUINONE Q10 OR COQ10 OR ENSOR B OR KANEKA Q10 OR KUDESAN OR NEUQUINON OR NEUQUINONE OR NSC 140865 OR Q 10AA OR Q GEL 100 OR UBIDECARENONE OR UBIQUINON E

L265 (12557) SEA FILE=BIOSIS ABB=ON PLU=ON N ACETYLCYSTEINE OR N ACETYL CYSTEINE OR ACC OR ACETILCYSTEINA OR ACETYLCYSTEINE OR AIRBRON OR BRONCHOLYSIN OR BRONCHOLYSIN OR BRUNAC OR EXOMUC OR FABROL OR FLUATOX OR FLUIBIOTIC OR FLUIMICIL OR FLUIMICIL INFANTIL OR FLUIMUCETIN

L266 (766) SEA FILE=BIOSIS ABB=ON PLU=ON FLUIMUCIL OR FLUMIL OR FLUPROWIT OR HYPOTEARS OR L ACETYLCYSTEINE OR L N ACETYLCYSTEIN E OR MERCAPTURIC ACID OR MERCAPTURIC ACID OR MUCO SANIGEN OR MUCOCEDYL OR MUCOFILIN OR MUCOLATOR OR MUCOLYTICUM

L267 (7061) SEA FILE=BIOSIS ABB=ON PLU=ON MUCOLYTICUM LAPPE OR MUCOLYTIKU M LAPPE OR MUCOMYST OR MUCOSOLVIN OR MUCRET OR N ACETYL R CYSTEINE OR N ACETYL L CYSTEINE OR N ACETYLCYSTEINE OR NA ACETYLCYSTEINE OR NEO FLUIMUCIL OR NSC 111180 OR PARVOLEXS

L268 (189835) SEA FILE=BIOSIS ABB=ON PLU=ON ZINC OR ZN OR ((F)(W)(1000 OR 1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE

L269 (18553) SEA FILE=BIOSIS ABB=ON PLU=ON FLAVONOID OR BIOFLAVONOID OR ((PHENYL)(W)(BENZOPYRANS OR CHROMENES))

L270 (24840) SEA FILE=BIOSIS ABB=ON PLU=ON VITAMIN E OR AQUASOL E OR E MIX 40 OR E MIX 70L OR EREVIT FORTE OR EVION OR FUJIMIX E 20N OR HYDROVIT E FORTE OR IRGANOX E 217 OR IRGANOX E 218 OR JUVELA E OR JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN E OIL 100 OR ROCAVIT E

L271 (3) SEA FILE=BIOSIS ABB=ON PLU=ON RONTEX 201 OR SUNACTIVE VE OR SURSUM

L272 (3273) SEA FILE=BIOSIS ABB=ON PLU=ON VITAMIN B6 OR ADERMINE OR VITAMIN H

L273 (25903) SEA FILE=BIOSIS ABB=ON PLU=ON L ASCORBIC ACID OR 3 KETO L GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP

L274 (318) SEA FILE=BIOSIS ABB=ON PLU=ON ASCORBUTINA OR ASCORELL OR ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR CEBICURE

L275 (3566) SEA FILE=BIOSIS ABB=ON PLU=ON CEBION OR CEBIONE OR CECON OR CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR CETAMID OR CETANE

L276 (15732) SEA FILE=BIOSIS ABB=ON PLU=ON CETANE CAPS TC OR CETEBE OR CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR CEVITAL OR CEVITAMIC ACID OR VITAMIN C

L277 (11952) SEA FILE=BIOSIS ABB=ON PLU=ON BETA(2A)CAROTENE OR BETACAROTEN E OR BETAVIT OR C I 40800

L278 (3) SEA FILE=BIOSIS ABB=ON PLU=ON CAROTABEN OR CAROTENE BASE 80S OR KPMK OR LUCARATIN OR LUCAROTIN OR LUROTIN OR NSC 62794 OR PROVATENE OR PROVATENOL OR SERLABO OR SOLATENE

L279 (103117) SEA FILE=BIOSIS ABB=ON PLU=ON (L260 OR L261 OR L262 OR L263 OR L264 OR L265 OR L266 OR L267)

L280 (91598) SEA FILE=BIOSIS ABB=ON PLU=ON (L269 OR L270 OR L271 OR L272 OR L273 OR L274 OR L275 OR L276 OR L277 OR L278)

L281 (1187) SEA FILE=BIOSIS ABB=ON PLU=ON L279 AND L268 AND L280

L282 (1235218) SEA FILE=BIOSIS ABB=ON PLU=ON IMMUNE SYSTEM/CT

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L283(        69)SEA FILE=BIOSIS ABB=ON  PLU=ON  L281 AND L282
L284(     26562)SEA FILE=BIOSIS ABB=ON  PLU=ON  NUTRIENT/CT
L285(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  L283 AND L284
L286(       376)SEA FILE=BIOSIS ABB=ON  PLU=ON  L279(15A) L268 (15A) L280
L287(        19)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L282
L288(         6)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L284
L289(   1099748)SEA FILE=BIOSIS ABB=ON  PLU=ON  34502/CC
L290(        19)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L289
L291(        31)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L285 OR L287 OR L288 OR L290)

L292         19 SEA FILE=BIOSIS ABB=ON  PLU=ON  L291 AND PY<2004


=> S L292 NOT L124
L448         19 L292 NOT L124

=> FILE EMBASE
FILE 'EMBASE' ENTERED AT 17:02:05 ON 08 DEC 2006
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 FILE COVERS 1974 TO 8 Dec 2006 (20061208/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> D QUE L324
L293(       419)SEA FILE=EMBASE ABB=ON  PLU=ON  BIOFLAVONOID/CT
L294(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L295(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L296(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L297(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L298(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L299(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L300(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L301(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L302(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L303(        10)SEA FILE=EMBASE ABB=ON  PLU=ON  L301 AND L299 AND L302
L304(     67925)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L294 OR L295 OR L296) OR
                 L300)
L305(     68249)SEA FILE=EMBASE ABB=ON  PLU=ON  (L304 OR L293)
L306(     49611)SEA FILE=EMBASE ABB=ON  PLU=ON  (L297 OR L298)
L307(    684624)SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L308(    347659)SEA FILE=EMBASE ABB=ON  PLU=ON  NUTRIENT+NT/CT
L309(         4)SEA FILE=EMBASE ABB=ON  PLU=ON  L303 AND L305 AND L306
L310(         4)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L303 OR L309)) AND PY<2004
L311(    169994)SEA FILE=EMBASE ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR
                 1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE
L312(      2385)SEA FILE=EMBASE ABB=ON  PLU=ON  IRGANOX E 218 OR JUVELA E OR
                 JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN E OIL 100 OR
                 ROCAVIT E OR RONTEX 201 OR SUNACTIVE VE  OR SURSUM OR VITAMIN
                 B6 OR ADERMINE OR VITAMIN H
L313(     36412)SEA FILE=EMBASE ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L
                 GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR
                 ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR
                 ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP
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L314(        46)SEA FILE=EMBASE ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR
                ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR
                CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR
                CEBICURE
L315(      1949)SEA FILE=EMBASE ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR
                CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C
                OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR
                CETAMID OR CETANE
L316(      8593)SEA FILE=EMBASE ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR
                CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR
                CEVITAL OR CEVITAMIC ACID OR VITAMIN C
L317(      9982)SEA FILE=EMBASE ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTEN
                E OR BETAVIT OR C I  40800 OR CAROTABEN OR CAROTENE BASE 80S
                OR KPMK OR LUCARATIN OR LUCAROTIN OR LUROTIN OR NSC 62794 OR
                PROVATENE OR PROVATENOL OR SERLABO OR SOLATENE
L318(     48101)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L312 OR L313 OR L314 OR L315
                OR L316 OR L317))
L319(        12)SEA FILE=EMBASE ABB=ON  PLU=ON  L293 AND L311(L)DT AND
                L318(L)DT
L320(        12)SEA FILE=EMBASE ABB=ON  PLU=ON  L319 AND ((L307 OR L308))
L321(        99)SEA FILE=EMBASE ABB=ON  PLU=ON  L293(L)DT
L322(        11)SEA FILE=EMBASE ABB=ON  PLU=ON  L321 AND L311(L)DT AND
                L318(L)DT
L323(        16)SEA FILE=EMBASE ABB=ON  PLU=ON  (L310 OR L320 OR L322)
L324          9 SEA FILE=EMBASE ABB=ON  PLU=ON  L323 AND PY<2004


=> S L324 NOT L150
L449          9 L324 NOT L150

=> FILE HCAPLUS
FILE 'HCAPLUS' ENTERED AT 17:02:29 ON 08 DEC 2006
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FILE COVERS 1907 - 8 Dec 2006  VOL 145 ISS 25
FILE LAST UPDATED: 7 Dec 2006  (20061207/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L355
L325(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L326(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L327(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
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L328(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L329(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L330(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L331(     48589)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L325 OR L326 OR L327 OR
                L328)
L332(    345705)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L329 OR L330)
L333(     59447)SEA FILE=HCAPLUS ABB=ON  PLU=ON  FLAVONOIDS+OLD,NT/CT
L334(       405)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L333(L)BIOFLAV?/OBI
L335(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L336(      6706)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L335
L337(     53037)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L331 OR L336)
L338(        19)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L328 AND L327 AND L335
L339(        18)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L338 AND PATENT/DT
L340(        17)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L339 AND (PRY<2004 OR AY<2004
                OR PRY<2004)
L341(         1)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L339 NOT L340
L342(         0)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L341 AND PY<2004
L343(        17)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L340 OR L342)
L344(        45)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L337 AND L332 AND L334
L345(    475791)SEA FILE=HCAPLUS ABB=ON  PLU=ON  IMMUNE SYSTEM+OLD,NT/CT
L346(         4)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L344 AND L345
L347(         3)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L343 AND L345
L348(      2870)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L337
L349(       133)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L348 AND L332
L350(         4)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L349 AND L334
L351(         5)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L332 AND L334
L352(         5)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L337 AND L334
L353(         7)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L346 OR L347 OR L350 OR L351
                OR L352)
L354(         7)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L353 AND PATENT/DT
L355          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L354 AND (PRY<2004 OR AY<2004
                OR PY<2004)


=> S L355 NOT L175
L450          5 L355 NOT L175

=> FILE MEDLINE
FILE 'MEDLINE' ENTERED AT 17:03:06 ON 08 DEC 2006

 FILE LAST UPDATED: 7 Dec 2006 (20061207/UP).  FILE COVERS 1950 TO DATE.

  In preparation for the annual MEDLINE reload, the National Library of
  Medicine (NLM) has suspended delivery of regular updates as of November
  15, 2006.  In-process and in-data-review records will resume delivery
  on November 21, 2006, and will continue to be added to MEDLINE until
  December 17, 2006.

  On December 17, 2006, all regular MEDLINE updates from November 15 to
  December 16 will be added to MEDLINE, along with 2007 Medical Subject
  Headings (MeSH(R)) and 2007 tree numbers.

  The annual reload will be available in early 2007.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> D QUE L383
L356(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L357(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
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L358(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L359(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L360(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L361(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L362(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L363(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L364(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L365(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L366(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L367(     34026)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOIDS+NT/CT
L368(      4488)SEA FILE=MEDLINE ABB=ON  PLU=ON  L365
L369(     19311)SEA FILE=MEDLINE ABB=ON  PLU=ON  L362
L370(      1156)SEA FILE=MEDLINE ABB=ON  PLU=ON  L363
L371(     28079)SEA FILE=MEDLINE ABB=ON  PLU=ON  L364
L372(     46858)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L360 OR L361)
L373(     37527)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L366 OR L356 OR L357 OR L358
                OR L359)
L374(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL
                300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACIDOR THIOCTIC
                ACID OR THIOGAMMA OR TIOBEC
L375(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR
                ACETYLCARNITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE
                ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR
                NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L376(    737843)SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L377(       146)SEA FILE=MEDLINE ABB=ON  PLU=ON  ((L367 OR L368 OR L369 OR
                L370 OR L371)) AND L372 AND ((L373 OR L374 OR L375))
L378(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L377 AND L376
L379(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L378 AND PY<2004
L380(      5347)SEA FILE=MEDLINE ABB=ON  PLU=ON  L376 AND ((L367 OR L368 OR
                L369 OR L370 OR L371))
L381(       107)SEA FILE=MEDLINE ABB=ON  PLU=ON  L380 AND L372
L382(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L381 AND ((L373 OR L374 OR
                L375))
L383          7 SEA FILE=MEDLINE ABB=ON  PLU=ON  L379 OR L382


=> D QUE L421
L384(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR
                ACETYLCARNITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE
                ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR
                NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE
L385(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL
                300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACID
L386(      2025)SEA FILE=MEDLINE ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR
                TIOBEC
L387(     73792)SEA FILE=MEDLINE ABB=ON  PLU=ON  GLUTATHIONE OR AGIFUTOL S OR
                BAKEZYME RX OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIO
                NE SH OR GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHION
                E OR GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED
                GLUTATHIONE OR TATHION OR TATHIONE OR TRIPTIDE
L388(      6758)SEA FILE=MEDLINE ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME
                Q10AQUA Q 10L10 OR BIO QUINON OR BIO QUINONE Q10 OR COQ10 OR
                ENSOR B OR KANEKA Q10 OR KUDESAN OR NEUQUINON OR NEUQUINONE OR
                NSC 140865 OR Q 10AA OR Q GEL 100 OR UBIDECARENONE OR UBIQUINON
                E
L389(     12418)SEA FILE=MEDLINE ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL
                CYSTEINE OR ACC OR ACETILCYSTEINA OR ACETYLCYSTEINE OR AIRBRON
                OR BRONCHOLYSIN OR BRONCHOLYSIN OR BRUNAC OR EXOMUC OR FABROL
                OR FLUATOX OR FLUIBIOTIC OR FLUIMICIL OR FLUIMICIL INFANTIL OR
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FLUIMUCETIN

L390(709) SEA FILE=MEDLINE ABB=ON PLU=ON FLUIMUCIL OR FLUMIL OR FLUPROWIT OR HYPOTEARS OR L-ACETYLCYSTEINE OR L-N-ACETYLCYSTEIN E OR MERCAPTURIC ACID OR MERCAPTURIC ACID OR MUCO SANIGEN OR MUCOCEDYL OR MUCOFILIN OR MUCOLATOR OR MUCOLYTICUM

L391(6869) SEA FILE=MEDLINE ABB=ON PLU=ON MUCOLYTICUM LAPPE OR MUCOLYTIK UM LAPPE OR MUCOMYST OR MUCOSOLVIN OR MUCRET OR N ACETYL(2A)CYS TEINE OR N ACETYL L CYSTEINE OR N ACETYLCYSTEINE OR N ALPHA ACETYLCYSTEINE OR NEO FLUIMUCIL OR NSC 111180 OR PARVOLEX

L392(1) SEA FILE=MEDLINE ABB=ON PLU=ON RESPAIRE OR SYNTEMUCOL OR TIXAIR

L393(322532) SEA FILE=MEDLINE ABB=ON PLU=ON ZINC OR ZN OR ((F)(W)(1000 OR 1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE

L394(19771) SEA FILE=MEDLINE ABB=ON PLU=ON FLAVONOID OR BIOFLAVONOID OR ((PHENYL)(W)(BENZOPYRANS OR CHROMENES))

L395(25881) SEA FILE=MEDLINE ABB=ON PLU=ON VITAMIN E OR AQUASOL E OR E MIX 40 OR E MIX 70L OR EREVIT FORTE OR EVION OR FUJIMIX E 20N OR HYDROVIT E FORTE OR IRGANOX E 217 OR IRGANOX E 218 OR JUVELA E OR JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN E OIL 100 OR ROCAVIT E

L396(4) SEA FILE=MEDLINE ABB=ON PLU=ON RONTEX 201 OR SUNACTIVE VE OR SURSUM

L397(6189) SEA FILE=MEDLINE ABB=ON PLU=ON VITAMIN B6 OR ADERMINE OR VITAMIN H OR VITAMINB6 OR VITAMIN B 6

L398(34014) SEA FILE=MEDLINE ABB=ON PLU=ON L ASCORBIC ACID OR 3 KETO L GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP

L399(62) SEA FILE=MEDLINE ABB=ON PLU=ON ASCORBUTINA OR ASCORELL OR ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR CEBICURE

L400(1045) SEA FILE=MEDLINE ABB=ON PLU=ON CEBION OR CEBIONE OR CECON OR CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR CETAMID OR CETANE

L401(12947) SEA FILE=MEDLINE ABB=ON PLU=ON CETANE CAPS TC OR CETEBE OR CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR CEVITAL OR CEVITAMIC ACID OR VITAMIN C

L402(7825) SEA FILE=MEDLINE ABB=ON PLU=ON BETA(2A)CAROTENE OR BETACAROTE NE OR BETAVIT OR C I 40800

L403(2) SEA FILE=MEDLINE ABB=ON PLU=ON CAROTABEN OR CAROTENE BASE 80S OR KPMK OR LUCARATIN OR LUCAROTIN

L404(0) SEA FILE=MEDLINE ABB=ON PLU=ON LUROTIN OR NSC 62794 OR PROVATENE OR PROVATENOL

L405(1) SEA FILE=MEDLINE ABB=ON PLU=ON SERLABO OR SOLATENE

L406(93944) SEA FILE=MEDLINE ABB=ON PLU=ON (L384 OR L385 OR L386 OR L387 OR L388 OR L389 OR L390 OR L391 OR L392)

L407(89206) SEA FILE=MEDLINE ABB=ON PLU=ON (L394 OR L395 OR L396 OR L397 OR L398 OR L399 OR L400 OR L401 OR L402 OR L403 OR L404 OR L405)

L408(631889) SEA FILE=MEDLINE ABB=ON PLU=ON FOOD+NT/CT

L409(1183) SEA FILE=MEDLINE ABB=ON PLU=ON L406 AND L407 AND L393

L410(80) SEA FILE=MEDLINE ABB=ON PLU=ON L406/MAJ AND L407/MAJ AND L393/MAJ

L411(23) SEA FILE=MEDLINE ABB=ON PLU=ON L410 AND L408

L412(737843) SEA FILE=MEDLINE ABB=ON PLU=ON IMMUNE SYSTEM+NT/CT

L413(57) SEA FILE=MEDLINE ABB=ON PLU=ON L409 AND L412

L414(15) SEA FILE=MEDLINE ABB=ON PLU=ON L413 AND L408

L415(0) SEA FILE=MEDLINE ABB=ON PLU=ON L411 AND L412

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L416(        18)SEA FILE=MEDLINE ABB=ON  PLU=ON  L406(L)TU AND L407(L)TU AND
                L393(L)TU
L417(         0)SEA FILE=MEDLINE ABB=ON  PLU=ON  L416 AND L412
L418(         3)SEA FILE=MEDLINE ABB=ON  PLU=ON  L416 AND L408
L419(        33)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L414 OR L416 OR L418)
L420(        27)SEA FILE=MEDLINE ABB=ON  PLU=ON  L419 AND PY<2004
L421         27 SEA FILE=MEDLINE ABB=ON  PLU=ON  (L420 OR L415 OR L417)


=> S (L383 OR L421) NOT (L199 OR L229)
L451        32 (L383 OR L421) NOT (L199 OR L229)

=> FILE WPIX
FILE 'WPIX' ENTERED AT 17:03:54 ON 08 DEC 2006
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FILE LAST UPDATED:                          4 DEC 2006   <20061204/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200678      <200678/DW>
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'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D QUE L447
L422(       218)SEA FILE=WPIX ABB=ON  PLU=ON  ACETYL L CARNITINE/BI,ABEX OR
                ACETYLCARNITINE/BI,ABEX OR ALCAR/BI,ABEX OR L ACETYLCARNITINE/B
                I,ABEX OR L CARNITINE ACETYL ESTER/BI,ABEX OR L O ACETYLCARNITI
                NE/BI,ABEX OR LEVOCARNITINE ACETYL/BI,ABEX OR NICETILE/BI,ABEX
                OR O ACETYL L CARNITINE/BI,ABEX OR O ACETYLCARNITINE/BI,ABEX
L423(      1049)SEA FILE=WPIX ABB=ON  PLU=ON  LIPOIC ACID/BI,ABEX OR BYODINOR
                AL 300/BI,ABEX OR D THIOCTIC ACID/BI,ABEX OR LIPOEC/BI,ABEX OR
                LIPOIC ACID/BI,ABEX
L424(       157)SEA FILE=WPIX ABB=ON  PLU=ON  THIOCTIC ACID/BI,ABEX OR
                THIOGAMMA/BI,ABEX OR TIOBEC/BI,ABEX
L425(      5016)SEA FILE=WPIX ABB=ON  PLU=ON  GLUTATHIONE/BI,ABEX OR  AGIFUTOL
                S/BI,ABEX OR BAKEZYME RX/BI,ABEX OR COPREN/BI,ABEX OR DELTATHIO
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NE/BI,ABEX OR GLUTATHION/BI,ABEX OR GLUTATHIONE SH/BI,ABEX OR GLUTIDE/BI,ABEX OR GLUTINAL/BI,ABEX OR GSH/BI,ABEX OR ISETHION/BI,ABEX OR L GLUTATHIONE/BI,ABEX OR GLUTAMYL L CYSTEINYL GLYCINE/BI,ABEX OR NEUTHION/BI,ABEX OR REDUCED GLUTATHIONE/BI,ABEX OR TATHION/BI,ABEX OR TATHIONE/BI,ABEX OR TRIPTIDE/BI,ABEX

L426(1644) SEA FILE=WPIX ABB=ON PLU=ON COENZYME Q10/BI,ABEX OR CO ENZYME Q10AQUA Q 10L10/BI,ABEX OR BIO QUINON/BI,ABEX OR BIO QUINONE Q10/BI,ABEX OR COQ10/BI,ABEX OR ENSOR B/BI,ABEX OR KANEKA Q10/BI,ABEX OR KUDESAN/BI,ABEX OR NEUQUINON/BI,ABEX OR NEUQUINONE/BI,ABEX OR NSC 140865/BI,ABEX OR Q 10AA/BI,ABEX OR Q GEL 100/BI,ABEX OR UBIDECARENONE/BI,ABEX OR UBIQUINONE/BI,ABEX

L427(2859) SEA FILE=WPIX ABB=ON PLU=ON N ACETYLCYSTEINE/BI,ABEX OR N ACETYL CYSTEINE/BI,ABEX OR ACC/BI,ABEX OR ACETILCYSTEINA/BI,ABEX OR ACETYLCYSTEINE/BI,ABEX OR AIRBRON/BI,ABEX OR BRONCHOLYSIN/BI,ABEX OR BRONCHOLYSIN/BI,ABEX OR BRUNAC/BI,ABEX OR EXOMUC/BI,ABEX OR FABROL/BI,ABEX OR FLUATOX/BI,ABEX OR FLUIBIOTIC/BI,ABEX OR FLUIMICIL/BI,ABEX OR FLUIMICIL INFANTIL/BI,ABEX OR FLUIMUCETIN/BI,ABEX

L428(19) SEA FILE=WPIX ABB=ON PLU=ON FLUIMUCIL/BI,ABEX OR FLUMIL/BI,ABEX OR FLUPROWIT/BI,ABEX OR HYPOTEARS/BI,ABEX OR L ACETYLCYSTEINE/BI,ABEX OR L N ACETYLCYSTEINE/BI,ABEX OR MERCAPTURIC ACID/BI,ABEX OR MERCAPTURIC ACID/BI,ABEX OR MUCO SANIGEN/BI,ABEX OR MUCOCEDYL/BI,ABEX OR MUCOFILIN/BI,ABEX OR MUCOLATOR/BI,ABEX OR MUCOLYTICUM/BI,ABEX

L429(766) SEA FILE=WPIX ABB=ON PLU=ON MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI,ABEX OR MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR NA ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR NSC 111180/BI,ABEX OR PARVOLEXS/BI,ABEX

L430(766) SEA FILE=WPIX ABB=ON PLU=ON MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI,ABEX OR MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR N ALPHA ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR NSC 111180/BI,ABEX OR PARVOLEXS/BI,ABEX

L431(1) SEA FILE=WPIX ABB=ON PLU=ON RESPAIRE/BI,ABEX OR SYNTEMUCOL/BI,ABEX OR TIXAIR/BI,ABEX

L432(215087) SEA FILE=WPIX ABB=ON PLU=ON ZINC/BI,ABEX OR ZN/BI,ABEX OR ((F/BI,ABEX)(W)(1000/BI,ABEX OR 1500/BI,ABEX OR 2000/BI,ABEX)) OR MCS/BI,ABEX OR ECKA/BI,ABEX OR SELENIUM/BI,ABEX OR SE/BI,ABEX

L433(2439) SEA FILE=WPIX ABB=ON PLU=ON FLAVONOID/BI,ABEX OR BIOFLAVONOID/BI,ABEX OR ((PHENYL/BI,ABEX)(W)(BENZOPYRANS/BI,ABEX OR CHROMENES/BI,ABEX))

L434(7857) SEA FILE=WPIX ABB=ON PLU=ON VITAMIN E/BI,ABEX OR AQUASOL E/BI,ABEX OR E MIX 40/BI,ABEX OR E MIX 70L/BI,ABEX OR EREVIT FORTE/BI,ABEX OR EVION/BI,ABEX OR FUJIMIX E 20N/BI,ABEX OR HYDROVIT E FORTE/BI,ABEX OR IRGANOX E 217/BI,ABEX OR IRGANOX E 218/BI,ABEX OR JUVELA E/BI,ABEX OR JUVELA FOOD 500/BI,ABEX OR MDE 6000/BI,ABEX OR PALMVITEE/BI,ABEX OR RIKEN E OIL 100/BI,ABEX OR ROCAVIT E/BI,ABEX

L435(0) SEA FILE=WPIX ABB=ON PLU=ON RONTEX 201/BI,ABEX OR SUNACTIVE VE/BI,ABEX OR SURSUM/BI,ABEX

L436(2040) SEA FILE=WPIX ABB=ON PLU=ON VITAMIN B6/BI,ABEX OR ADERMINE/BI,ABEX OR VITAMIN H/BI,ABEX

L437(14268) SEA FILE=WPIX ABB=ON PLU=ON L ASCORBIC ACID/BI,ABEX OR 3 KETO L GULOFURANOLACTONE/BI,ABEX OR 3 OXO L GULOFURANOLACTONE/BI,ABEX OR ADENEX/BI,ABEX OR ALLERCORB/BI,ABEX OR ANTISCORBIC

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                VITAMIN/BI,ABEX OR ANTISCORBUTIC VITAMIN/BI,ABEX OR ASCOLTIN/BI
                ,ABEX OR ASCORBAJEN/BI,ABEX OR ASCORBIC ACID/BI,ABEX OR
                ASCORBICAP/BI,ABEX
L438(           1)SEA FILE=WPIX ABB=ON  PLU=ON  ASCORBUTINA/BI,ABEX OR ASCORELL/B
                I,ABEX OR ASCORIN/BI,ABEX OR ASCORTEAL/BI,ABEX OR ASCORVIT/BI,A
                BEX OR C QUIN/BI,ABEX OR C VIMIN/BI,ABEX OR CANTAN/BI,ABEX OR
                CANTAXIN/BI,ABEX OR CATAVIN C/BI,ABEX OR CE MI LIN/BI,ABEX OR
                CE VI SOL/BI,ABEX OR CEBICURE/BI,ABEX
L439(        2172)SEA FILE=WPIX ABB=ON  PLU=ON  CEBION/BI,ABEX OR CEBIONE/BI,ABEX
                 OR CECON/BI,ABEX OR CEGIOLAN/BI,ABEX OR CEGLION/BI,ABEX OR
                CEKLIN/BI,ABEX OR CELASKON/BI,ABEX OR CELIN/BI,ABEX OR CELL
                C/BI,ABEX OR CEMAGYL/BI,ABEX OR CENETONE/BI,ABEX OR CEREON/BI,A
                BEX OR CERGONA/BI,ABEX OR CESCORBAT/BI,ABEX OR CETAMID/BI,ABEX
                OR CETANE/BI,ABEX
L440(        5867)SEA FILE=WPIX ABB=ON  PLU=ON  CETANE CAPS TC/BI,ABEX OR
                CETEBE/BI,ABEX OR CETEMICAN/BI,ABEX OR CEVALIN/BI,ABEX OR
                CEVATINE/BI,ABEX OR CEVEX/BI,ABEX OR CEVIMIN/BI,ABEX OR
                CEVITAL/BI,ABEX OR CEVITAMIC ACID/BI,ABEX OR VITAMIN C/BI,ABEX
L441(        2230)SEA FILE=WPIX ABB=ON  PLU=ON  BETA/BI,ABEX(2A)CAROTENE/BI,ABEX
                OR BETACAROTENE/BI,ABEX OR BETAVIT/BI,ABEX OR C I  40800/BI,ABE
                X
L442(           2)SEA FILE=WPIX ABB=ON  PLU=ON  CAROTABEN/BI,ABEX OR CAROTENE
                BASE 80S/BI,ABEX OR KPMK/BI,ABEX OR LUCARATIN/BI,ABEX OR
                LUCAROTIN/BI,ABEX OR LUROTIN/BI,ABEX OR NSC 62794/BI,ABEX OR
                PROVATENE/BI,ABEX OR PROVATENOL/BI,ABEX OR SERLABO/BI,ABEX OR
                SOLATENE/BI,ABEX
L443(        9933)SEA FILE=WPIX ABB=ON  PLU=ON  (L422 OR L423 OR L424 OR L425 OR
                L426 OR L427 OR L428 OR L429 OR L430 OR L431)
L444(       30659)SEA FILE=WPIX ABB=ON  PLU=ON  (L433 OR L434 OR L435 OR L436 OR
                L437 OR L438 OR L439 OR L440 OR L441 OR L442)
L445(      353386)SEA FILE=WPIX ABB=ON  PLU=ON  FOOD/BI,ABEX OR CANDY/BI,ABEX OR
                CEREAL/BI,ABEX OR CONDIMENT/BI,ABEX OR BREAD/BI,ABEX OR
                DIARY/BI,ABEX OR DIETARY/BI,ABEX OR EGG/BI,ABEX OR FLOUR/BI,ABE
                X OR HONEY/BI,ABEX OR MEAT/BI,ABEX OR MICRONUTRIENT/BI,ABEX OR
                MICRO NUTRIENT/BI,ABEX OR NUTRIENT/BI,ABEX
L446(         172)SEA FILE=WPIX ABB=ON  PLU=ON  L432 (10A) L443 (10A)L444
L447           18 SEA FILE=WPIX ABB=ON  PLU=ON  L446 (15A)L445


=> S L447 NOT L258
L452           18 L447 NOT L258

=> DUP REM L451 L448 L449 L450 L452
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PROCESSING COMPLETED FOR L451
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PROCESSING COMPLETED FOR L449
PROCESSING COMPLETED FOR L450
PROCESSING COMPLETED FOR L452
L453 79 DUP REM L451 L448 L449 L450 L452 (4 DUPLICATES REMOVED)
ANSWERS '1-32' FROM FILE MEDLINE
ANSWERS '33-47' FROM FILE BIOSIS
ANSWERS '48-56' FROM FILE EMBASE
ANSWERS '57-61' FROM FILE HCAPLUS
ANSWERS '62-79' FROM FILE WPIX

=> D IALL 1-32; D IALL 33-47; D IALL 48-56; D IBIB ED ABS 57-61; D IALL ABEQ TECH 62-79

L453 ANSWER 1 OF 79 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2003551151 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 14629897
TITLE: **Beta-carotene** supplementation decreases leukocyte superoxide dismutase activity and serum **glutathione** peroxidase concentration in humans.
AUTHOR: McGill Carla R; Green Nancy R; Meadows Margaret C; Gropper Sareen S
CORPORATE SOURCE: Tropicana Products, Inc., 1001 13th Avenue East, Bradenton, FL 34208, USA.. carla.mcgill@tropicana.com
SOURCE: The Journal of nutritional biochemistry, **(2003 Nov)** Vol. 14, No. 11, pp. 656-62.
Journal code: 9010081. ISSN: 0955-2863.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 22 Nov 2003
Last Updated on STN: 24 Jun 2004
Entered Medline: 18 Jun 2004
ABSTRACT:
The effects of a 30 mg/day **beta-carotene** supplement for 60 days on blood cell and serum antioxidant enzymes and **selenium** concentrations were examined in healthy adults. Serum **beta-** ***carotene*** concentrations increased significantly ($P < 0.05$) in response to supplementation. Forty percent of subjects exhibited hypercarotenemia of the skin after 30 days. There were no changes in the activity of red blood cell or leukocyte catalase activity, red blood cell copper,**zinc** -dependent superoxide dismutase activity or serum myeloperoxidase concentration in response to **beta-carotene** supplementation. Leukocyte superoxide dismutase activity decreased significantly ($P < 0.05$) at 30 and 60 days compared to baseline. Serum **glutathione** peroxidase concentration decreased significantly ($P < 0.05$) between baseline and days 45 and 60 of supplementation. Serum **selenium** and blood hemoglobin concentrations did not change during the study. Supplemental **beta-** ***carotene*** may alter the antioxidant capacity of plasma and/or blood cells in vivo.
CONTROLLED TERM: Check Tags: Female; Male
Adult
Dietary Supplements
***Glutathione Peroxidase: BL, blood**
Hemoglobins: AN, analysis
Humans
***Leukocytes: EN, enzymology**
Middle Aged
Peroxidase: BL, blood

Research Support, Non-U.S. Gov't
Selenium: BL, blood
*Superoxide Dismutase: BL, blood
***beta Carotene: AD, administration & dosage**

CAS REGISTRY NO.: **7235-40-7 (beta Carotene)**; **7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Hemoglobins); EC 1.11.1.7 (Peroxidase); EC 1.11.1.9 (**Glutathione** Peroxidase); EC 1.15.1.1 (Superoxide Dismutase)

L453 ANSWER 2 OF 79 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2004019716 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 14695940

TITLE: **Coenzyme Q10**-containing composition (Immugen) protects against occupational and environmental stress in workers of the gas and oil industry.

AUTHOR: Korkina Ludmila; Deeva Irina; Ibragimova Galina; Shakula Alexander; Luci Antonio; De Luca Chiara

CORPORATE SOURCE: Department of Molecular Biology, Russian State Medical University, Moscow, Russia.. korkin@aha.ru

SOURCE: BioFactors (Oxford, England), **(2003)** Vol. 18, No. 1-4, pp. 245-54.
Journal code: 8807441. ISSN: 0951-6433.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200404

ENTRY DATE: Entered STN: 14 Jan 2004
Last Updated on STN: 16 Apr 2004
Entered Medline: 15 Apr 2004

ABSTRACT:
The manual workers of the gas-and-oil extraction industry are exposed to hostile environmental and occupational conditions, resulting in elevated mortality and disability, due to chronic neurological and cardiovascular diseases. We evaluated the degree of oxidative stress, often associated with these pathological features, in the blood of manual and office employees of Russian Siberian extraction plants, and their psycho-physiological conditions. Results showed increased levels of spontaneous ($p < 0.05$) and PMA-activated ($p < 0.01$) luminol-dependent chemiluminescence (LDCL) in the white blood cells (WBC), and decreased peroxynitrite levels ($p < 0.05$) in the group of manual workers, and less markedly in the clerks and technicians working on spot, vs. a control group of city clerks. Superoxide release by WBC, and plasma/WBC membrane ubiquinol levels did not display major differences in the three groups. A relevant percentage of manual/office workers of extraction platforms presented impaired cardiovascular and neurological functions. The short term administration of a nutraceutical formulation based on coenzyme10, ***vitamin*** **E, selenium**, methionine and phospholipids led to significant improvement of cardiovascular parameters and psycho-emotional status, consistent with the normalization of LDCL and peroxynitrite production by WBC, with a good compliance to treatment confirmed by the increased blood levels of ubiquinol.

CONTROLLED TERM: Check Tags: Female; Male
Adult
Cardiovascular Diseases: ET, etiology
Cardiovascular Diseases: PC, prevention & control
Chemiluminescent Measurements
Dietary Supplements

Emotions
*Environment
Humans
Industrial Oils
Leukocytes: PH, physiology
Luminol: PD, pharmacology
Methionine: AD, administration & dosage
Middle Aged
Nervous System Diseases: ET, etiology
Nervous System Diseases: PC, prevention & control
*Occupational Exposure
*Oxidative Stress
Peroxynitrous Acid: BL, blood
*Petroleum
Phospholipids: AD, administration & dosage
Research Support, Non-U.S. Gov't
Russia
Selenium: AD, administration & dosage
Siberia
Superoxides: BL, blood
Tetradecanoylphorbol Acetate: PD, pharmacology
***Ubiquinone: AD, administration & dosage**
***Ubiquinone: AA, analogs & derivatives**
Ubiquinone: BL, blood
Vitamin E: AD, administration & dosage

CAS REGISTRY NO.: 11062-77-4 (Superoxides); **1339-63-5 (Ubiquinone)**; **1406-18-4 (Vitamin E)**; 14691-52-2 (Peroxynitrous Acid); 16561-29-8 (Tetradecanoylphorbol Acetate); **303-98-0 (coenzyme Q10)**; 521-31-3 (Luminol); 56275-39-9 (ubiquinol); 63-68-3 (Methionine); **7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Phospholipids)

L453 ANSWER 3 OF 79 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 2000126779 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10660942

TITLE: Fumonisin B1-induced DNA damage in rat liver and spleen: effects of pretreatment with coenzyme Q10, L-carnitine, alpha-tocopherol and selenium.

AUTHOR: Atroshi F; Rizzo A; Biese I; Veijalainen P; Saloniemi H; Sankari S; Andersson K

CORPORATE SOURCE: Department of Clinical Sciences, Faculty of Veterinary Medicine, University of Helsinki, Finland.

SOURCE: Pharmacological research : the official journal of the Italian Pharmacological Society, **(1999 Dec)** Vol. 40, No. 6, pp. 459-67.
Journal code: 8907422. ISSN: 1043-6618.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200002

ENTRY DATE: Entered STN: 29 Feb 2000
Last Updated on STN: 29 Feb 2000
Entered Medline: 17 Feb 2000

ABSTRACT:
Active oxygen radical species are reported to cause organ damage. This study was designed to determine whether oxidative stress contributed to the initiation or progression of hepatic and splenic cell DNA damage induced by fumonisin B1 (FB1) in rats. Another aim was to investigate the protective

effects of the antioxidants coenzyme Q10 (CoQ10), L-carnitine, vitamin E (alpha-tocopherol) and selenium against DNA damage in the liver and spleen of rats treated with FB1. Fasted rats were injected intravenously with a single dose of fumonisin B1 at 1.55 mg kg-1 body weight into the tail vein. Treatment with FB1 led to splenic and hepatic DNA fragmentation in 85% of the test animals. DNA fragmentation was investigated as a critical event in toxic cell death by testing total Ca2+ in liver. FB1 administration caused total Ca2+ in liver to increase within 4 h (204% of control). Measurement of liver enzyme activities showed an increase in aspartate aminotransferase (ASAT) and alanine aminotransferase (ALAT). FB1 also markedly decreased splenic and hepatic glutathione (GSH) levels. Pretreatment with CoQ10 (30 mg CoQ10 kg-1 diet) together with L-carnitine (2.8 mg carnitine kg-1 diet), alpha-tocopherol (30 IU vitamin E kg-1 diet) and selenium (1 mg selenium as sodium selenite kg-1 diet), decreased DNA damage and the activities of Ca2+, ASAT and ALAT in the liver. On the other hand, the level of GSH was slightly increased. The CoQ10 alone did not significantly protect against toxic cell death and glutathione depletion caused by FB1. Oxidative damage caused by FB1 may be one of the underlining mechanisms of FB1-induced cell injury and DNA damage.

CONTROLLED TERM: Check Tags: Male
Animals
Calcium: ME, metabolism
*Carboxylic Acids: TO, toxicity
*Carnitine: PD, pharmacology
DNA: DE, drug effects
*DNA Damage
*Fumonisins
Glutathione: AN, analysis
*Liver: DE, drug effects
Rats
Rats, Sprague-Dawley
*Selenium: PD, pharmacology
***Spleen: DE, drug effects**
*Ubiquinone: AA, analogs & derivatives
Ubiquinone: PD, pharmacology
*Vitamin E: PD, pharmacology

CAS REGISTRY NO.: 116355-83-0 (fumonisin B1); 1339-63-5 (Ubiquinone); **1406-18-4 (Vitamin E); 303-98-0 (coenzyme Q10)**; 541-15-1 (Carnitine); **70-18-8 (Glutathione)**; 7440-70-2 (Calcium); **7782-49-2 (Selenium)**; 9007-49-2 (DNA)

CHEMICAL NAME: 0 (Carboxylic Acids); 0 (Fumonisins)

L453 ANSWER 4 OF 79 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2000107509 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10642897

TITLE: Effects of multivitamin/mineral supplementation, at nutritional doses, on plasma antioxidant status and DNA damage estimated by sister chromatid exchanges in lymphocytes in pregnant women.

AUTHOR: Park E; Wagenbichler P; Elmadfa I

CORPORATE SOURCE: Institut fur Ernahrungswissenschaften, Wien.

SOURCE: International journal for vitamin and nutrition research. Internationale Zeitschrift fur Vitamin- und Ernahrungsforschung. Journal international de vitaminologie et de nutrition, **(1999 Nov)** Vol. 69, No. 6, pp. 396-402.
Journal code: 1273304. ISSN: 0300-9831.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 18 Feb 2000
Last Updated on STN: 13 Apr 2000
Entered Medline: 4 Feb 2000

ABSTRACT:
The purpose of this study was to evaluate the effect of multivitamin/mineral-supplementation during pregnancy on plasma levels of antioxidants and sister chromatid exchange (SCE) rate--an indicator of damage to DNA. A controlled, semi-randomized, prospective trial was performed comparing the supplement group, who received multivitamin/mineral tablet once daily for 10 weeks, to the control group. Plasma levels of antioxidants and SCE in lymphocytes were measured initially (20 wk gestation) and at the end of the intervention (34 wk gestation). In the control group, SCE rates increased significantly at 34 wk gestation compared to 20 wk gestation, whereas there was no change in the supplement group. Plasma retinol, **beta-carotene** and ascorbate decreased significantly in the control group. In the supplement group, a significant increase in plasma **beta-carotene** (55.6%), **coenzyme Q10** (40.2%), folic acid (15.9%) and ***zinc*** (24.2%) was observed after 10 weeks of supplement. Increased plasma levels of antioxidants in the supplement group could not decrease SCE rates, however, they could prevent an increase in SCE rates which may be induced by reactive oxygen species generated from the enhanced steroid hormones in the last trimester, suggesting that multivitamin/mineral-supplement during pregnancy may prevent DNA damage due to the altered hormonal profile.

CONTROLLED TERM: Check Tags: Female
Adult
*Antioxidants: ME, metabolism
Ascorbic Acid: BL, blood
*DNA Damage
***Dietary Supplements**
Folic Acid: BL, blood
Gestational Age
Humans
Lymphocytes: CH, chemistry
*Minerals: AD, administration & dosage
Pregnancy
Prospective Studies
Reactive Oxygen Species: ME, metabolism
*Sister Chromatid Exchange
Ubiquinone: BL, blood
Vitamin A: BL, blood
*Vitamins: AD, administration & dosage
Zinc: BL, blood
beta Carotene: BL, blood

CAS REGISTRY NO.: 11103-57-4 (Vitamin A); **1339-63-5 (Ubiquinone)**; **50-81-7 (Ascorbic Acid)**; 59-30-3 (Folic Acid); **7235-40-7 (beta Carotene)**; **7440-66-6 (Zinc)**

CHEMICAL NAME: 0 (Antioxidants); 0 (Minerals); 0 (Reactive Oxygen Species); 0 (Vitamins)

L453 ANSWER 5 OF 79 MEDLINE on STN
ACCESSION NUMBER: 2003294578 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12821289
TITLE: Copper toxicity, oxidative stress, and antioxidant nutrients.
AUTHOR: Gaetke Lisa M; Chow Ching Kuang
CORPORATE SOURCE: Department of Nutrition and Food Science, University of

Kentucky, 218 Funkhouser Building, Lexington, KY 40506-0054, USA.. lgaetke@uky.edu
SOURCE: Toxicology, **(2003 Jul 15)** Vol. 189, No. 1-2, pp. 147-63. Ref: 150
Journal code: 0361055. ISSN: 0300-483X.
PUB. COUNTRY: Ireland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 25 Jun 2003
Last Updated on STN: 30 Jul 2003
Entered Medline: 29 Jul 2003

ABSTRACT:
Copper (Cu) is an integral part of many important enzymes involved in a number of vital biological processes. Although normally bound to proteins, Cu may be released and become free to catalyze the formation of highly reactive hydroxyl radicals. Data obtained from in vitro and cell culture studies are largely supportive of Cu's capacity to initiate oxidative damage and interfere with important cellular events. Oxidative damage has been linked to chronic Cu-overload and/or exposure to excess Cu caused by accidents, occupational hazards, and environmental contamination. Additionally, Cu-induced oxidative damage has been implicated in disorders associated with abnormal Cu metabolism and neurodegenerative changes. Interestingly, a deficiency in dietary Cu also increases cellular susceptibility to oxidative damage. A number of nutrients have been shown to interact with Cu and alter its cellular effects. Vitamin E is generally protective against Cu-induced oxidative damage. While most in vitro or cell culture studies show that ascorbic acid aggravates Cu-induced oxidative damage, results obtained from available animal studies suggest that the compound is protective. High intakes of ascorbic acid and zinc may provide protection against Cu toxicity by preventing excess Cu uptake. Zinc also removes Cu from its binding site, where it may cause free radical formation. Beta-carotene, alpha-lipoic acid and polyphenols have also been shown to attenuate Cu-induced oxidative damage. Further studies are needed to better understand the cellular effects of this essential, but potentially toxic, trace mineral and its functional interaction with other nutrients.

CONTROLLED TERM:
Animals
Antioxidants: ME, metabolism
*Antioxidants: PD, pharmacology
Ascorbic Acid: ME, metabolism
Ascorbic Acid: TU, therapeutic use
Copper: ME, metabolism
*Copper: TO, toxicity
*Flavonoids
Humans
Hydroxyl Radical: ME, metabolism
Oxidative Stress: DE, drug effects
*Oxidative Stress: PH, physiology
Phenols: ME, metabolism
Phenols: TU, therapeutic use
Polymers: ME, metabolism
Polymers: TU, therapeutic use
Thioctic Acid: ME, metabolism
Thioctic Acid: TU, therapeutic use
Vitamin E: ME, metabolism
Vitamin E: TU, therapeutic use
Zinc: ME, metabolism
Zinc: TU, therapeutic use
beta Carotene: ME, metabolism

beta Carotene: TU, therapeutic use

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 3352-57-6 (Hydroxyl Radical); 50-81-7 (Ascorbic Acid); 62-46-4 (Thioctic Acid); 7235-40-7 (beta Carotene); 7440-50-8 (Copper); 7440-66-6 (Zinc)

CHEMICAL NAME: 0 (Antioxidants); 0 (Flavonoids); 0 (Phenols); 0 (Polymers); 0 (polyphenols)

L453 ANSWER 6 OF 79 MEDLINE on STN

ACCESSION NUMBER: 2003085654 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 12597353

TITLE: Chemoprevention of lung cancer: soon daily practice?.

AUTHOR: van Zandwijk Nico; Pastorino Ugo

CORPORATE SOURCE: Head Dept. Thoracic Oncology, Netherlands Cancer Institute, Amsterdam.. n.v.zandwijk@nki.nl

SOURCE: Expert review of anticancer therapy, **(2003 Feb)** Vol. 3, No. 1, pp. 91-8. Ref: 80
Journal code: 101123358. ISSN: 1473-7140.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200304

ENTRY DATE: Entered STN: 25 Feb 2003
Last Updated on STN: 29 Apr 2003
Entered Medline: 28 Apr 2003

ABSTRACT:
The statistics on lung cancer survival remain disappointing and form a powerful argument to develop new methods to control this most deadly form of cancer in both men and women. Chemoprevention is one of these new approaches. While carcinogens from cigarette smoke form an essential link between nicotine addiction and lung cancer, several investigations confirm that dietary and genetically determined factors play an important role in modulating the individual susceptibility and are linked to the chemoprevention approach. In spite of a large abundance of positive preclinical observations, most experiences with potential chemopreventive agents, such as retinoids and antioxidants in individuals at risk for lung cancer have been so far negative. Moreover, beta-carotene was associated with an increased lung cancer incidence in two large randomized studies, as a consequence of a negative interaction with smoking. On the other hand, recent progress in molecular biology has led to the discovery of specific approaches to chemoprevention and there considerable optimism regarding the potential of molecules and antibodies that target specific receptors or mutations. Epidermal growth factor receptor blocking agents, farnesyltransferase and cyclooxygenase inhibitors and 9-cis retinoic acid have been identified as promising candidates for studies in high risk populations. After more than 20 years of worldwide research, the prospects for effective lung cancer treatment are better than ever.

CONTROLLED TERM:
Acetylcysteine: TU, therapeutic use
Animals
Anticarcinogenic Agents: TU, therapeutic use
*Antineoplastic Agents: TU, therapeutic use
Antioxidants: TU, therapeutic use
Carotenoids: TU, therapeutic use
Clinical Trials
Diet
Humans
*Lung Neoplasms: PC, prevention & control
Pyrazines: TU, therapeutic use
Retinoids: TU, therapeutic use
Selenium: TU, therapeutic use

Smoking: PA, pathology
Vitamin E: TU, therapeutic use

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 36-88-4 (Carotenoids); 616-91-1 (Acetylcysteine); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Anticarcinogenic Agents); 0 (Antineoplastic Agents); 0 (Antioxidants); 0 (Pyrazines); 0 (Retinoids)

L453 ANSWER 7 OF 79 MEDLINE on STN

ACCESSION NUMBER: 2002042696 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11769876

TITLE: Results and lessons from clinical trials using dietary supplements for cancer: direct and indirect investigations.

AUTHOR: Moyad M A

CORPORATE SOURCE: Department of Surgery, University of Michigan Medical Center, Ann Arbor 48109-0330, USA.

SOURCE: Seminars in urologic oncology, **(2001 Nov)** Vol. 19, No. 4, pp. 232-46. Ref: 124
Journal code: 9514993. ISSN: 1081-0943.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 24 Jan 2002
Last Updated on STN: 13 Mar 2002
Entered Medline: 12 Mar 2002

ABSTRACT:
Randomized controlled trials are generally regarded as the standard of study designs to determine potential causality. The inclusion of a placebo group in these trials, when appropriate, is generally needed to access the efficacy of a drug or dietary supplement. The recent increasing use of dietary supplements and herbal medications by patients makes it imperative to reevaluate the past findings of clinical studies. Several large-scale trials of dietary supplements have been tested in various populations to determine their effect on cancer prevention. Other trials have focused on patients already diagnosed with cancer. In the latter case, it is difficult to involve a placebo because of the serious nature of the disease. Nevertheless, much has been gleaned from these trials directly and indirectly. Overall, when analyzing primary endpoints in these trials, the results have been discouraging and even support the nonuse of certain supplements because of potential adverse effects. Other secondary endpoints in these same trials have revealed some potential encouraging and discouraging data. Individuals who currently qualify for the potential use of dietary supplements for cancer may be restricted to those who have a deficiency in a certain compound despite adequate dietary sources or lifestyle changes. Those individuals with a smoking history or other unhealthy lifestyle seem to have the most to gain or lose from taking certain dietary supplements for cancer. The time seems more than ripe to evaluate past adequate trials with supplements, such as beta-carotene, N-acetyl-cysteine, selenium, shark cartilage, vitamin C, vitamin E, and others. Again, these studies have been disappointing, but they provide insight for the clinician and patient of what to potentially expect when using these supplements for cancer. In addition, indirect trials for other conditions (cardiovascular) may provide future insight into possible results for future cancer prevention trials.

CONTROLLED TERM: **Acetylcysteine: TU, therapeutic use**
Amygdalin: AE, adverse effects
Antioxidants: TU, therapeutic use
Ascorbic Acid: PD, pharmacology
Ascorbic Acid: TU, therapeutic use
***Dietary Supplements**

Disease Progression
Humans
*Neoplasms: DT, drug therapy
Neoplasms: PC, prevention & control
Randomized Controlled Trials
Selenium: TU, therapeutic use
Tissue Extracts: TU, therapeutic use
Vitamin A: TU, therapeutic use
Vitamin E: TU, therapeutic use
beta Carotene: TU, therapeutic use

CAS REGISTRY NO.: 11103-57-4 (Vitamin A); 1406-18-4 (Vitamin E); 29883-15-6 (Amygdalin); 50-81-7 (Ascorbic Acid); 616-91-1 (Acetylcysteine); 7235-40-7 (beta Carotene); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antioxidants); 0 (Tissue Extracts); 0 (shark cartilage extract AE 941)

L453 ANSWER 8 OF 79 MEDLINE on STN

ACCESSION NUMBER: 2001284270 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11015002

TITLE: Antioxidative treatment retards progression of idiopathic membranous nephropathy.

AUTHOR: Braun N; Frank J; Biesalski H K; Risler T

SOURCE: Nephron, **(2000 Oct)** Vol. 86, No. 2, pp. 208-9.
Journal code: 0331777. ISSN: 0028-2766.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: (CASE REPORTS)
Letter

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200105

ENTRY DATE: Entered STN: 29 May 2001
Last Updated on STN: 29 May 2001
Entered Medline: 24 May 2001

CONTROLLED TERM: Check Tags: Male
Acetylcysteine: TU, therapeutic use
Adult
*Antioxidants: TU, therapeutic use
Ascorbic Acid: TU, therapeutic use
Complement Membrane Attack Complex: AN, analysis
Complement Membrane Attack Complex: UR, urine
Disease Progression
Glomerulonephritis, Membranous: BL, blood
*Glomerulonephritis, Membranous: DT, drug therapy
Glomerulonephritis, Membranous: PA, pathology
Humans
Kidney: PA, pathology
Selenium: TU, therapeutic use
Thiobarbituric Acid Reactive Substances: AN, analysis
Time Factors
Vitamin E: BL, blood
Vitamin E: TU, therapeutic use
beta Carotene: BL, blood
beta Carotene: TU, therapeutic use

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 50-81-7 (Ascorbic Acid); 616-91-1 (Acetylcysteine); 7235-40-7 (beta Carotene); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antioxidants); 0 (Complement Membrane Attack Complex); 0 (Thiobarbituric Acid Reactive Substances)

L453 ANSWER 9 OF 79 MEDLINE on STN
ACCESSION NUMBER: 2000123730 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10648276
TITLE: Effect of micronutrient status on natural killer cell immune function in healthy free-living subjects aged >/=90 y.
AUTHOR: Ravaglia G; Forti P; Maioli F; Bastagli L; Facchini A; Mariani E; Savarino L; Sassi S; Cucinotta D; Lenaz G
CORPORATE SOURCE: Department of Internal Medicine, Cardioangiology, and Hepatology, the Department of Angiology and Blood Coagulation, and the Division of Geriatric Medicine, University Hospital Sant'Orsola-Malpighi, Bologna, Italy.. ravaglia@almadns.unibo.it
SOURCE: The American journal of clinical nutrition, **(2000 Feb)** Vol. 71, No. 2, pp. 590-8.
Journal code: 0376027. ISSN: 0002-9165.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 29 Feb 2000
Last Updated on STN: 29 Feb 2000
Entered Medline: 17 Feb 2000

ABSTRACT:
BACKGROUND: Natural killer (NK) cells play a role in natural immunity against tumor and infected cells. Advanced aging is associated with functional impairment of NK cells and increased susceptibility to nutritional deficiencies. OBJECTIVE: Our objective was to test whether micronutrient status affects NK cell activity in an older population. DESIGN: The relations between NK cell variables (percentage of leukocytes and cytotoxicity) and blood concentrations of selected micronutrients were studied in 62 healthy, free-living northern Italian subjects (25 men, 37 women) aged 90-106 y. Anthropometric measurements were also made. RESULTS: All subjects were well nourished according to age-specific anthropometric norms but many of them had micronutrient deficiencies. The prevalence of micronutrient deficiency was highest for selenium (in approximately 50% of both sexes), zinc (in 52% of men and 41% of women), and vitamin B-6 (in 40% of men and 59% of women), followed by vitamin A (in 16% of men and 27% of women) and vitamin E, vitamin B-12, and folate (each in <10% of both sexes). Ubiquinone-10 status was inadequate in 40% of women and 24% of men (P = 0.02). The percentage of NK cells was associated with serum zinc (men: r = 0.573, P = 0. 007; women: r = 0.373, P = 0.031) and selenium (women: r = 0.409, P = 0.018) concentrations. In women only, NK cell cytotoxicity at different effector-target cell ratios was positively associated with plasma vitamin E and ubiquinone-10 concentrations (P < 0.05). No significant associations with NK cell variables were found for the other measured nutrients. CONCLUSIONS: The results of this study strengthen the hypothesis that individual micronutrients may affect the number and function of NK cells in old age. The study also confirms the high prevalence of micronutrient deficiencies in healthy and apparently well-nourished persons aged >/=90 y.

CONTROLLED TERM: Check Tags: Female; Male
Adult
*Aged: PH, physiology
Aged, 80 and over
Anthropometry
Antigens, CD56: AN, analysis
Cytotoxicity, Immunologic
Diet
Humans

*Killer Cells, Natural: IM, immunology
Lymphocyte Count
*Micronutrients: AN, analysis
Middle Aged
Nutritional Status
Receptors, IgG: AN, analysis
Research Support, Non-U.S. Gov't
Selenium: BL, blood
Ubiquinone: AA, analogs & derivatives
Ubiquinone: BL, blood
Vitamin E: BL, blood
Zinc: BL, blood

CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); **1406-18-4 (Vitamin E); 303-98-0 (coenzyme Q10); 7440-66-6 (Zinc) ; 7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Antigens, CD56); 0 (Micronutrients); 0 (Receptors, IgG)

L453 ANSWER 10 OF 79 MEDLINE on STN

ACCESSION NUMBER: 1999458084 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10530501

TITLE: Case report: oral antioxidant therapy for the treatment of primary biliary cirrhosis: a pilot study.

AUTHOR: Watson J P; Jones D E; James O F; Cann P A; Bramble M G

CORPORATE SOURCE: Centre for Liver Research, University of Newcastle upon Tyne, UK.

SOURCE: Journal of gastroenterology and hepatology, **(1999 Oct)** Vol. 14, No. 10, pp. 1034-40.
Journal code: 8607909. ISSN: 0815-9319.

PUB. COUNTRY: Australia

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199912

ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 13 Jan 2000
Entered Medline: 21 Dec 1999

ABSTRACT:
BACKGROUND: The symptoms of the chronic cholestatic liver disease primary biliary cirrhosis (PBC), in particular fatigue and chronic pruritus, adversely affect quality of life and respond only poorly to treatment. Recent studies have suggested that oxidative stress may play a role in tissue damage in cholestatic liver disease and may contribute to symptoms, such as fatigue. We have, therefore, examined, in an open-label pilot study, the therapeutic effects of antioxidant medication on the biochemistry and symptomatology of PBC. METHODS: Patients were randomized to 3 months treatment with a compound antioxidant vitamin preparation (Bio-Antox), four tablets daily (n = 11, group 1), or the combination of Bio-Quinone Q10 (100 mg) with Bio-Antox (n = 13, group 2). Biochemical and symptomatic responses were assessed at 3 months. RESULTS: Significant improvement in both pruritus and fatigue was seen in the patients in group 2. Mean itch visual analogue score improved from 2.4 +/- 3.0 to 0.4 +/- 0.7 post therapy ($P < 0.05$) while mean night itch severity score improved from 2.6 +/- 1.9 to 1.3 +/- 0.7 ($P < 0.05$). Nine of 13 of these patients reported less fatigue, while 10/13 showed an improvement in at least one domain of their Fisk Fatigue Severity Score. No significant improvement in itch and only limited improvement in fatigue were seen in the patients in group 1. No change in biochemical parameters was seen in either group. CONCLUSIONS: Antioxidant therapy, as a combination of Bio-Antox and Bio-Quinone Q10, may improve the pruritus and fatigue of PBC. This combination of therapy should be

investigated further in a double-blind, placebo-controlled trial.
CONTROLLED TERM: Check Tags: Female; Male
*Antioxidants: TU, therapeutic use
Ascorbic Acid: TU, therapeutic use
Drug Therapy, Combination
Fatigue: DI, diagnosis
Fatigue: DT, drug therapy
Humans
Liver Cirrhosis, Biliary: DI, diagnosis
*Liver Cirrhosis, Biliary: DT, drug therapy
Methionine: TU, therapeutic use
Middle Aged
Pilot Projects
Pruritus: DI, diagnosis
Pruritus: DT, drug therapy
Selenium: TU, therapeutic use
Treatment Outcome
Ubiquinone: AA, analogs & derivatives
Ubiquinone: TU, therapeutic use
Vitamin E: TU, therapeutic use
beta Carotene: TU, therapeutic use
CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); 1406-18-4 (Vitamin E); 303-98-0 (coenzyme Q10); 50-81-7 (Ascorbic Acid); 63-68-3 (Methionine); 7235-40-7 (beta Carotene); 7782-49-2 (Selenium)
CHEMICAL NAME: 0 (Antioxidants)

L453 ANSWER 11 OF 79 MEDLINE on STN
ACCESSION NUMBER: 1999210587 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10194683
TITLE: Effect of administration of **vitamin E** and **selenium** during the dry period on mammary health and milk cell counts in dairy ewes.
AUTHOR: Morgante M; Beghelli D; Pauselli M; Dall'Ara P; Capuccella M; Ranucci S
CORPORATE SOURCE: Istituto di Semeiotica Medica e Metodologia Clinica Veterinaria, Perugia, Italy.
SOURCE: Journal of dairy science, **(1999 Mar)** Vol. 82, No. 3, pp. 623-31.
Journal code: 2985126R. ISSN: 0022-0302.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 4 May 1999
Last Updated on STN: 4 May 1999
Entered Medline: 22 Apr 1999
ABSTRACT:
The effect of parenteral administration of two subcutaneous injections of ***vitamin*** **E** and **Se** (5 mg and 0.1 mg/kg of body weight, respectively) during the dry period on the mammary health and milk somatic cell counts of 25 dairy ewes was investigated. Supplementation reduced somatic cell counts (5.4 vs. 6.0 log10) during the subsequent lactation but had no effect on the incidence of clinical mastitis (4% vs. 6%) and intramammary infections (9.0% vs. 11.3%). Furthermore, the administration of ***vitamin*** **E** and **Se** was associated with differences in differential cell counts of milk samples (macrophages, 48.8% vs. 38.4%; polymorphonuclear neutrophils, 40.1% vs. 50.7%; and eosinophils, 0.7% vs. 1.4% for control ewes and ewes receiving supplements, respectively). The

administration of these supplements also increased erythrocyte ***glutathione*** peroxidase activity (139.5 vs. 86.3 U/ml of packed cell volume) and the percentage of blood neutrophils that reduced nitroblue tetrazolium after bacterial extract stimulation (48.6% vs. 38.7%). Parenteral administration of **vitamin E** and **Se** to ewes during the dry period appeared to have influenced mammary gland status during the subsequent lactation and particularly total and differential milk cell counts.

CONTROLLED TERM: Check Tags: Female
Animals
*Cell Count
Dietary Supplements
Glutathione Peroxidase: BL, blood
Leukocyte Count
Lymphocytes
Macrophages
*Mammary Glands, Animal: PH, physiology
Mastitis: MI, microbiology
Mastitis: VE, veterinary
***Milk: CY, cytology**
Muramidase: ME, metabolism
Neutrophils
***Selenium: AD, administration & dosage**
*Sheep: PH, physiology
Sheep Diseases: MI, microbiology
Staphylococcal Infections: VE, veterinary
Streptococcal Infections: VE, veterinary
***Vitamin E: AD, administration & dosage**

CAS REGISTRY NO.: **1406-18-4 (Vitamin E); 7782-49-2 (Selenium)**

CHEMICAL NAME: EC 1.11.1.9 (**Glutathione** Peroxidase); EC 3.2.1.17 (Muramidase)

L453 ANSWER 12 OF 79 MEDLINE on STN

ACCESSION NUMBER: 2000135520 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10672965

TITLE: The influences of dietary **selenium** and **vitamin E** intakes on milk somatic cell counts and mastitis in cows.

AUTHOR: Hemingway R G

CORPORATE SOURCE: Department of Veterinary Clinical Studies, Glasgow University Veterinary School, Scotland, UK.

SOURCE: Veterinary research communications, **(1999 Dec)** Vol. 23, No. 8, pp. 481-99. Ref: 63
Journal code: 8100520. ISSN: 0165-7380.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200003

ENTRY DATE: Entered STN: 27 Mar 2000
Last Updated on STN: 27 Mar 2000
Entered Medline: 14 Mar 2000

ABSTRACT:
Dietary supplements of **selenium** and **vitamin E** in greater amounts than are required for nutritional adequacy can have complementary functions in reducing somatic cell counts and both the severity and duration of clinical mastitis. **Selenium** inadequacy is geographically widespread and can frequently be a year-round problem. In contrast, an adequate intake of fresh grass and quality grass silage or other

green, leafy material should provide adequate **vitamin E.**
Many observations indicate that in farm situations where there is good udder hygiene and where long-acting antibiotic treatment is given at drying off, significant correlations are found between the mean bulk milk somatic cell counts and the blood **selenium** concentration or **glutathione** peroxidase activity in the blood, even where plasma **vitamin E** concentration is fully adequate. The accompanying reduced incidence of clinically affected quarters diminishes the need for corrective antibiotic treatment during lactation. Presentation of **selenium** and ***vitamin*** **E** within a sustained-release rumen bolus system during the dry period and into the succeeding lactation is a convenient means of supplementation to avoid over- or under-consumption by individual cows within a group. Adequate hygiene of the environment, the milking equipment and the udder are essential.

CONTROLLED TERM: Check Tags: Female
Animals
Cattle
Cell Count: VE, veterinary
***Dietary Supplements**
Glutathione Peroxidase: BL, blood
Mastitis, Bovine: ET, etiology
*Mastitis, Bovine: PC, prevention & control
***Milk: CY, cytology**
Neutrophils: PH, physiology
***Selenium: AD, administration & dosage**
***Vitamin E: AD, administration & dosage**

CAS REGISTRY NO.: **1406-18-4 (Vitamin E); 7782-49-2 (Selenium)**

CHEMICAL NAME: EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 13 OF 79 MEDLINE on STN

ACCESSION NUMBER: 1999246254 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10231223

TITLE: Antioxidant therapy in the prevention of organ dysfunction syndrome and infectious complications after trauma: early results of a prospective randomized study.

AUTHOR: Porter J M; Ivatury R R; Azimuddin K; Swami R

CORPORATE SOURCE: The Lincoln Medical Center, Bronx, New York, USA.

SOURCE: The American surgeon, **(1999 May)** Vol. 65, No. 5, pp. 478-83.
Journal code: 0370522. ISSN: 0003-1348.

COMMENT: Erratum in: Am Surg 1999 Sep;65(9):902

PUB. COUNTRY: United States

DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199905

ENTRY DATE: Entered STN: 25 May 1999
Last Updated on STN: 3 Mar 2000
Entered Medline: 13 May 1999

ABSTRACT:
Reactive oxygen species have been implicated in the etiology of multiorgan dysfunction syndrome and infectious complications in trauma patients by either direct cellular toxicity and/or the activation of intracellular signaling pathways. Studies have shown that the antioxidant defenses of the body are decreased in trauma patients; these include glutathione, for which N-acetylcysteine is a precursor, and selenium, which is a cofactor for glutathione. Eighteen trauma patients were prospectively randomized to a

control or antioxidant group where they received N-acetylcysteine, selenium, and vitamins C and E for 7 days. As compared with the controls, the antioxidant group showed fewer infectious complications (8 versus 18) and fewer organs dysfunctioning (0 versus 9). There were no deaths in either group. We conclude that these preliminary data may support a role for the use of this antioxidant mixture to decrease the incidence of multiorgan dysfunction syndrome and infectious complications in the severely injured patient. This remains to be confirmed in larger trials.

CONTROLLED TERM: **Acetylcysteine: TU, therapeutic use**
*Antioxidants: TU, therapeutic use
Ascorbic Acid: TU, therapeutic use
Humans
*Infection: DT, drug therapy
Infection: ET, etiology
Injury Severity Score
Multiple Organ Failure: ET, etiology
*Multiple Organ Failure: PC, prevention & control
Prospective Studies
Selenium: TU, therapeutic use
Treatment Outcome
Vitamin E: TU, therapeutic use
*Wounds and Injuries: CO, complications
*Wounds and Injuries: DT, drug therapy

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 50-81-7 (Ascorbic Acid); 616-91-1 (Acetylcysteine); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antioxidants)

L453 ANSWER 14 OF 79 MEDLINE on STN

ACCESSION NUMBER: 1999354450 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 10425718

TITLE: Effect of exercise training, **selenium** and **vitamin E** on some free radical scavengers in horses (Equus caballus).

AUTHOR: Avellini L; Chiaradia E; Gaiti A

CORPORATE SOURCE: Istituto di Biochimica e Chimica Medica, Universita di Perugia, Italy.

SOURCE: Comparative biochemistry and physiology. Part B, Biochemistry & molecular biology, **(1999 Jun)** Vol. 123, No. 2, pp. 147-54.
Journal code: 9516061. ISSN: 1096-4959.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199908

ENTRY DATE: Entered STN: 27 Aug 1999
Last Updated on STN: 27 Aug 1999
Entered Medline: 19 Aug 1999

ABSTRACT:
Physical exercise increases both tissue needs for oxygen and cellular respiration and causes an overproduction of free radicals. When free radical generation exceeds the cell's antioxidant capacity tissue-damage develops due to oxidative stress. Therefore, it appears important to increase the scavenger ability of the tissues. Controlled training and dietary supplements may provide ways of doing this. As a model, we used 3-year-old racehorses (Equus caballus) which underwent a series of different physical exercise trials before and after 70 days of daily training and dietary supplements (**vitamin** ***E*** and **selenium**). The above treatments were able to increase both red blood cell resistance to the peroxidative stress induced in vitro and the **glutathione** peroxidase activity in lymphocytes. Moreover, they

were also able to decrease malondialdehyde (MDA) concentration in the plasma as well as **vitamin E** consumption and the mobilisation of low molecular weight antioxidants (total peroxyl-radical trapping) following the physical exercise trials. The results obtained indicated that the training and diet supplements we used were able to significantly increase horse antioxidant defences in both the extracellular fluids and blood cells of our horses, thus decreasing peroxidative phenomena following physical exercise.

CONTROLLED TERM: Check Tags: Male
Animals
Dietary Supplements
Erythrocytes: DE, drug effects
Erythrocytes: ME, metabolism
*Free Radical Scavengers: BL, blood
Glutathione Peroxidase: BL, blood
*Horses: BL, blood
Lymphocytes: EN, enzymology
Malondialdehyde: BL, blood
Methemoglobin: ME, metabolism
Oxidative Stress
*Physical Conditioning, Animal
Research Support, Non-U.S. Gov't
***Selenium: BL, blood**
Selenium: PD, pharmacology
***Vitamin E: BL, blood**
Vitamin E: PD, pharmacology
tert-Butylhydroperoxide

CAS REGISTRY NO.: **1406-18-4 (Vitamin E)**; 542-78-9 (Malondialdehyde); 75-91-2 (tert-Butylhydroperoxide); **7782-49-2 (Selenium)**; 9008-37-1 (Methemoglobin)

CHEMICAL NAME: 0 (Free Radical Scavengers); EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 15 OF 79 MEDLINE on STN

ACCESSION NUMBER: 1999070419 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 9853307

TITLE: Nitroblue tetrazolium reduction of neutrophils in heat stressed goats is not influenced by **selenium** and **vitamin E** injection.

AUTHOR: Katamoto H; Fukuda H; Oshima I; Ishikawa N; Kanai Y

CORPORATE SOURCE: Department of Veterinary Surgery, College of Agriculture, Osaka Prefecture University, Japan.

SOURCE: The Journal of veterinary medical science / the Japanese Society of Veterinary Science, **(1998 Nov)** Vol. 60, No. 11, pp. 1243-9.
Journal code: 9105360. ISSN: 0916-7250.

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199903

ENTRY DATE: Entered STN: 26 Mar 1999
Last Updated on STN: 26 Mar 1999
Entered Medline: 18 Mar 1999

ABSTRACT:
Experiment was designed to determine whether heat stress suppresses neutrophil function and injections of **selenium** and **vitamin E** prior to heat stress prevent suppression of neutrophil function in goats. Twelve female goats were divided into 2 groups of 6 each and were kept at 25 degrees C. Goats in the treatment group were injected intramuscularly with 0.1 mg/kg of **selenium** and 2.72 IU/kg of **vitamin E** at

8 and 1 day prior to the initiation of heat stress. The other group was kept as control. All goats were exposed to hot environment at 38 degrees C from day 0 through 8. Decreased tendency in plasma cortisol concentrations and temporary increase in plasma glucose concentrations were shown in both groups. In the control group, plasma **selenium** concentration gradually increased and alpha-tocopherol concentration decreased during the first 2 days. After the second injection with **selenium** and **vitamin** ***E*** , plasma **selenium** and alpha-tocopherol concentration significantly increased and remained higher than those in the control group. Whole blood **glutathione** peroxidase (**GSH**-Px) activity in the treatment group tended to be greater than that in the control group, but no significant difference was observed between 2 groups. The nitroblue tetrazolium (NBT) reduction by activated neutrophils significantly decreased on day 6 in the control group but not in the treatment group. The NBT reduction by resting neutrophils significantly decreased in both groups. These data suggest that heat stress depresses neutrophil function, and **selenium** and **vitamin E** injection prior to heat stress has no apparent effect on neutrophil function during the stress.

CONTROLLED TERM: Check Tags: Female
Animals
Blood Glucose: ME, metabolism
Body Temperature
Glutathione Peroxidase: BL, blood
*Goats: BL, blood
Heat Stress Disorders: BL, blood
*Heat Stress Disorders: VE, veterinary
Hematocrit
Hydrocortisone: BL, blood
*Indicators and Reagents: ME, metabolism
Leukocyte Count
***Neutrophils: DE, drug effects**
Neutrophils: ME, metabolism
*Nitroblue Tetrazolium: ME, metabolism
Respiration
Selenium: BL, blood
***Selenium: PD, pharmacology**
Vitamin E: BL, blood
***Vitamin E: PD, pharmacology**

CAS REGISTRY NO.: **1406-18-4 (Vitamin E)**; 298-83-9 (Nitroblue Tetrazolium); 50-23-7 (Hydrocortisone); **7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Blood Glucose); 0 (Indicators and Reagents); EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 16 OF 79 MEDLINE on STN

ACCESSION NUMBER: 1998105337 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 9443126

TITLE: Neonatal hemochromatosis: outcomes of pharmacologic and surgical therapies.

AUTHOR: Sigurdsson L; Reyes J; Kocoshis S A; Hansen T W; Rosh J; Knisely A S

CORPORATE SOURCE: Department of Pediatrics, Children's Hospital of Pittsburgh, Pennsylvania 15213-2583, USA.

SOURCE: Journal of pediatric gastroenterology and nutrition, **(1998 Jan)** Vol. 26, No. 1, pp. 85-9.
Journal code: 8211545. ISSN: 0277-2116.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199802
ENTRY DATE: Entered STN: 26 Feb 1998
Last Updated on STN: 26 Feb 1998
Entered Medline: 13 Feb 1998

ABSTRACT:
BACKGROUND: Neonatal hemochromatosis (NH), also known as perinatal hemochromatosis or neonatal iron storage disease, is a disorder in fetuses and newborn infants. A retrospective study was conducted to report management of patients with NH. METHODS: Retrospective analysis was conducted by chart review and by review of histologic material from patients with NH. RESULTS: Neonatal hemochromatosis was diagnosed in 14 patients between 1985 and 1995. All were considered for orthotopic liver transplantation (OLTX). From 1993 onward, all patients were treated with an antioxidant-chelation "cocktail," consisting of deferoxamine, vitamin E, N-acetylcysteine, selenium, and prostaglandin-E1. Of 6 patients with NH diagnosed before 1993, 4 underwent OLTX; only 1 is still alive. Of 8 patients with NH diagnosed after 1993 and treated with the cocktail, 7 expired before OLTX. One stabilized on therapy, but having never recovered full synthetic liver function, underwent OLTX and is now alive and well. CONCLUSION: Neonatal hemochromatosis carries a grim prognosis; however, successful OLTX is curative. The use of an antioxidant-chelation cocktail did not improve outcome in the patients studied. Earlier (perinatal) diagnosis may be required for optimal results. Further study of other interventions, including antenatal diagnosis and earlier institution or modification of cocktail therapy appears warranted.

CONTROLLED TERM:
Acetylcysteine: TU, therapeutic use
Alprostadil: TU, therapeutic use
Antioxidants: TU, therapeutic use
Chelating Agents: TU, therapeutic use
Deferoxamine: TU, therapeutic use
*Hemochromatosis: DT, drug therapy
*Hemochromatosis: SU, surgery
Humans
Infant, Newborn
Liver Transplantation
Retrospective Studies
Selenium: TU, therapeutic use
*Treatment Outcome
Vitamin E: TU, therapeutic use

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 616-91-1 (Acetylcysteine); 70-51-9 (Deferoxamine); 745-65-3 (Alprostadil); 7782-49-2 (Selenium)
CHEMICAL NAME: 0 (Antioxidants); 0 (Chelating Agents)

L453 ANSWER 17 OF 79 MEDLINE on STN
ACCESSION NUMBER: 1998292373 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9630419
TITLE: Changes in blood chemistry, hematology, and histology caused by a **selenium/vitamin E** deficiency and recovery in chicks.
AUTHOR: Bartholomew A; Latshaw D; Swayne D E
CORPORATE SOURCE: Department of Animal Sciences, Ohio State University, Columbus 43210, USA.
SOURCE: Biological trace element research, **(1998 Apr-May)** Vol. 62, No. 1-2, pp. 7-16.
Journal code: 7911509. ISSN: 0163-4984.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199808

ENTRY DATE: Entered STN: 17 Aug 1998
Last Updated on STN: 17 Aug 1998
Entered Medline: 5 Aug 1998

ABSTRACT:
Exudative diathesis, a condition caused by a **selenium** (**Se**)/ ***vitamin*** **E** deficiency, was studied in chicks. Trios of chicks that showed clinical signs of exudative diathesis were matched for severity. One was injected subcutaneously with 0.5 mL distilled water, and the other two received 15 microg of **Se** in 0.5 mL distilled water. A chick fed a diet with supplemental **Se** also received 0.5 mL distilled water. Blood was collected from three chicks 2 d after injection, and from the other chick, 6 d after injection. After blood was collected, pectoral muscle and bone marrow were collected. Deficient chicks showed varying degrees of necrosis in pectoral muscle, whereas recovering chicks had extensive fibrosis in pectoral muscle. An analysis of blood showed differences in CO2, glucose, ***Se*** , **glutathione** peroxidase, alanine aminotransferase, aspartate aminotransferase, and creatine kinase. Heterophils and monocytes were increased in deficient chicks; lymphocytes, basophils, and hemoglobin decreased. After 6 d of recovery, all of the changes noted above were correcting toward normal. Eosinophils, in contrast, were unaffected by a deficiency, but increased in recovering chicks. It is hypothesized that cytokines associated with the inflammatory response accentuate the clinical signs of exudative diathesis.

CONTROLLED TERM: Animals
Bone Marrow: PA, pathology
Chickens
Clinical Chemistry Tests
*Deficiency Diseases: BL, blood
Deficiency Diseases: PA, pathology
*Femur: PA, pathology
Leukocyte Count
Necrosis
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, Non-P.H.S.
***Selenium: DF, deficiency**
***Vitamin E Deficiency: BL, blood**
Vitamin E Deficiency: PA, pathology

CAS REGISTRY NO.: **7782-49-2 (Selenium)**

L453 ANSWER 18 OF 79 MEDLINE on STN
ACCESSION NUMBER: 97422929 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9276994
TITLE: Nutritional metabolic diseases of poultry and disorders of the biological antioxidant defence system.
AUTHOR: Mezes M; Surai P; Salyi G; Speake B K; Gaal T; Maldjian A
CORPORATE SOURCE: Department of Nutrition, Godollo University of Agricultural Sciences, Hungary.
SOURCE: Acta veterinaria Hungarica, **(1997)** Vol. 45, No. 3, pp. 349-60. Ref: 55
Journal code: 8406376. ISSN: 0236-6290.
PUB. COUNTRY: Hungary
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199710
ENTRY DATE: Entered STN: 5 Nov 1997
Last Updated on STN: 5 Nov 1997
Entered Medline: 21 Oct 1997

ABSTRACT:

Deficiencies or disturbances of nutrition cause a variety of diseases and can arise in different ways. The amount of a particular nutrient in the diet may be insufficient to meet the requirements, the diet may contain substances that inactivate the nutrient or inhibit its absorption/utilisation, or metabolism may be upset by the interaction of dietary and environmental factors. Peroxidation of lipids or oxygen free radical generation in general is a physiological process important for cell metabolism, division and differentiation and also for the biosynthesis of hormones and prostaglandins. Free radicals generated through these processes are effectively scavenged by the antioxidant defence system. Uncontrolled lipid oxidation caused by disturbances of that system may play a crucial role in some important poultry diseases and toxicoses. The first route of lipid peroxide loading of the organism is via the feed, such as through oxidised lipids. Oxidised fatty acids are absorbed from the intestine mainly in the form of unsaturated keto compounds and initiate lipid peroxidation in the tissues. The second problem is the insufficient amount of antioxidants in the feed, e.g. **vitamin** ***E*** deficiency. Nutritional encephalomalacia is a problem in poultry production which depends both on the actual **vitamin E** supply and the dietary amount of polyunsaturated fatty acids. In young birds the primary target of **vitamin E** deficiency is the brain because it contains low amounts of **vitamin E**, and the ***vitamin*** **E** content of the liver acting as store decreases rapidly during the first week of life. Besides **vitamin E**, other components of the antioxidant system, e.g. the antioxidant enzymes (catalase and **glutathione** peroxidase) also have low activity in the brain as compared to other major tissues. The brain is highly susceptible to oxidative stress because of the accumulation of polyunsaturated fatty acids. The third source of free radical generation is the toxic level of different feed ingredients, e.g. toxicoses caused by vitamin A, **selenium**, and ionophore antibiotics. Other important aspects of antioxidants (e.g. ***vitamin*** **E** and **selenium**) in poultry are stimulation of the immune response (e.g. in the case of vaccination) and reduction of the risks of free radical formation as a result of macrophage function.

CONTROLLED TERM: Check Tags: Female
Animals
Antioxidants: AD, administration & dosage
*Antioxidants: ME, metabolism
Catalase: PH, physiology
Chick Embryo: DE, drug effects
Chick Embryo: GD, growth & development
***Chickens**
Diet: VE, veterinary
Environment
Glutathione Peroxidase: PH, physiology
***Immune System: PH, physiology**
Lipid Peroxidation: PH, physiology
Metabolic Diseases: ME, metabolism
Metabolic Diseases: PP, physiopathology
*Metabolic Diseases: VE, veterinary
Poultry Diseases: ME, metabolism
*Poultry Diseases: PP, physiopathology
Research Support, Non-U.S. Gov't
Selenium: PH, physiology
Vitamin E: PH, physiology

CAS REGISTRY NO.: **1406-18-4 (Vitamin E)**; **7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Antioxidants); EC 1.11.1.6 (Catalase); EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 19 OF 79 MEDLINE on STN

ACCESSION NUMBER: 97329407 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 9184056
TITLE: Protective effects of GSH, alpha-tocopherol, and selenium on lipid-peroxidation in liver and kidney of copper fed rats.
AUTHOR: Rana S V; Verma S
CORPORATE SOURCE: Toxicology Laboratory, Department of Zoology, Ch. Charan Singh University, Meerut, 250 004, India.
SOURCE: Bulletin of environmental contamination and toxicology, **(1997 Jul)** Vol. 59, No. 1, pp. 152-8.
Journal code: 0046021. ISSN: 0007-4861.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 5 Aug 1997
Last Updated on STN: 5 Aug 1997
Entered Medline: 22 Jul 1997
CONTROLLED TERM: Check Tags: Male
Animals
Copper: PK, pharmacokinetics
*Copper: TO, toxicity
Drug Interactions
*Glutathione: PD, pharmacology
Glutathione: TU, therapeutic use
*Kidney: DE, drug effects
Kidney: ME, metabolism
*Liver: DE, drug effects
Liver: ME, metabolism
Malondialdehyde: ME, metabolism
Rats
*Selenium: PD, pharmacology
Selenium: TU, therapeutic use
*Vitamin E: PD, pharmacology
Vitamin E: TU, therapeutic use
CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 542-78-9 (Malondialdehyde); 70-18-8 (Glutathione); 7440-50-8 (Copper); 7782-49-2 (Selenium)

L453 ANSWER 20 OF 79 MEDLINE on STN
ACCESSION NUMBER: 96338440 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 8726547
TITLE: Abnormalities of antioxidant metabolism in a case of Friedreich's disease.
AUTHOR: Helveston W; Cibula J E; Hurd R; Uthman B M; Wilder B J
CORPORATE SOURCE: Department of Neurology, University of Florida, Gainesville, USA.
SOURCE: Clinical neuropharmacology, **(1996 Jun)** Vol. 19, No. 3, pp. 271-5.
Journal code: 7607910. ISSN: 0362-5664.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199611
ENTRY DATE: Entered STN: 19 Dec 1996
Last Updated on STN: 19 Dec 1996
Entered Medline: 27 Nov 1996
ABSTRACT:

We report a patient with Friedreich's disease (FD) who exhibited abnormalities of antioxidant metabolism, including decreased levels of glutathione peroxidase, glutathione reductase, and selenium, and an increased lipid peroxide index. These abnormalities became normal after treatment with N-acetylcysteine, selenium, and low-dose vitamin E therapy. Treatment was associated with a decreased rate of clinical decline. FD is a neurodegenerative disorder that may be related to disturbed antioxidant metabolism; the disorder may be treatable with antioxidant compounds.

CONTROLLED TERM: Check Tags: Female
***Acetylcysteine: TU, therapeutic use**
Adult
Antioxidants: ME, metabolism
*Antioxidants: TU, therapeutic use
Free Radicals: ME, metabolism
Glutathione Peroxidase: BL, blood
Glutathione Reductase: BL, blood
Humans
Lipid Peroxides: BL, blood
*Myoclonus: BL, blood
*Myoclonus: DT, drug therapy
Selenium: TU, therapeutic use
Vitamin E: TU, therapeutic use

CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 616-91-1 (Acetylcysteine); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antioxidants); 0 (Free Radicals); 0 (Lipid Peroxides); EC 1.11.1.9 (Glutathione Peroxidase); EC 1.8.1.7 (Glutathione Reductase)

L453 ANSWER 21 OF 79 MEDLINE on STN

ACCESSION NUMBER: 95317638 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 7797106

TITLE: Protection of vitamin E, selenium, trolox C, ascorbic acid palmitate, acetylcysteine, coenzyme Q0, coenzyme Q10, beta-carotene, canthaxanthin, and (+)-catechin against oxidative damage to rat blood and tissues in vivo.

AUTHOR: Chen H; Tappel A L

CORPORATE SOURCE: Department of Pharmacology, School of Medicine, University of Washington, Seattle, USA.

CONTRACT NUMBER: DK-39225 (NIDDK)

SOURCE: Free radical biology & medicine, **(1995 May)** Vol. 18, No. 5, pp. 949-53.
Journal code: 8709159. ISSN: 0891-5849.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199508

ENTRY DATE: Entered STN: 17 Aug 1995
Last Updated on STN: 17 Aug 1995
Entered Medline: 3 Aug 1995

ABSTRACT:
Male Sprague-Dawley rats were fed either a vitamin E and selenium deficient diet, a diet supplemented with vitamin E and selenium, or a diet supplemented with vitamin E, selenium, trolox C, ascorbic acid palmitate, acetylcysteine, Beta-carotene, canthaxanthin, coenzyme Q0, coenzyme Q10, and (+)-catechin. Rats were injected with CBrCl3 (0.05 mmol/100 g body weight) intraperitoneally. Oxidative damage to tissues was measured by formation of oxidized heme proteins (OHP) in blood, liver, kidney, heart, lung, and spleen. Diets supplemented with antioxidants showed protection against oxidative damage caused by CBrCl3. The protection was dependent on the diversity and quantity of antioxidants in

the diet. In general, diets supplemented with both fat soluble and water soluble antioxidants provided better protection than diets supplemented only with vitamin E and selenium or with vitamin E, selenium, and fat soluble antioxidants.

CONTROLLED TERM: Check Tags: Male
Acetylcysteine: PD, pharmacology
Animals
*Antioxidants: PD, pharmacology
Ascorbic Acid: PD, pharmacology
Canthaxanthin: PD, pharmacology
Carotenoids: PD, pharmacology
Catechin: PD, pharmacology
Chromans: PD, pharmacology
Comparative Study
Heart: DE, drug effects
Hemeproteins: DE, drug effects
*Hemeproteins: ME, metabolism
Kidney: DE, drug effects
Kidney: ME, metabolism
Liver: DE, drug effects
Liver: ME, metabolism
Lung: DE, drug effects
Lung: ME, metabolism
Myocardium: ME, metabolism
Oxidation-Reduction
*Oxidative Stress: DE, drug effects
Palmitic Acid
Palmitic Acids: PD, pharmacology
Rats
Rats, Sprague-Dawley
Research Support, U.S. Gov't, P.H.S.
Selenium: DF, deficiency
Selenium: PD, pharmacology
Spleen: DE, drug effects
Spleen: ME, metabolism
Ubiquinone: AA, analogs & derivatives
Ubiquinone: PD, pharmacology
Vitamin E: PD, pharmacology
Vitamin E Deficiency: BL, blood
Vitamin E Deficiency: ME, metabolism
beta Carotene

CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); **1406-18-4 (Vitamin E)**; 154-23-4 (Catechin); **303-98-0 (coenzyme Q10)**; 36-88-4 (Carotenoids); **50-81-7 (Ascorbic Acid)**; 514-78-3 (Canthaxanthin); 56305-04-5 (6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid); 57-10-3 (Palmitic Acid); **616-91-1 (Acetylcysteine)**; **7235-40-7 (beta Carotene)**; **7782-49-2 (Selenium)**

CHEMICAL NAME: 0 (Antioxidants); 0 (Chromans); 0 (Hemeproteins); 0 (Palmitic Acids)

L453 ANSWER 22 OF 79 MEDLINE on STN
ACCESSION NUMBER: 95219010 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7704186
TITLE: Vitamin E, selenium, trolox C, ascorbic acid palmitate, acetylcysteine, coenzyme Q, beta-carotene, canthaxanthin, and (+)-catechin protect against oxidative damage to kidney, heart, lung and spleen.
AUTHOR: Chen H; Tappel A L
CORPORATE SOURCE: Department of Food Science and Technology, University of

California, Davis 95616.
CONTRACT NUMBER: DK-39225 (NIDDK)
SOURCE: Free radical research, **(1995 Feb)** Vol. 22, No. 2, pp. 177-86.
Journal code: 9423872. ISSN: 1071-5762.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 18 May 1995
Last Updated on STN: 18 May 1995
Entered Medline: 5 May 1995

ABSTRACT:
Male Sprague-Dawley rats were fed diets that varied qualitatively and quantitatively in antioxidants. Kidney, heart, lung, and spleen homogenates were incubated at 37 degrees C with and without hydroperoxide or Fe+2. Protection of antioxidants against oxidative damage to tissue was determined by measurement of oxidized heme proteins. Tissues from rats supplemented with dietary vitamin E and selenium showed protection compared to tissues from rats on the basal diet. Tissues from rats with diets containing larger quantities of antioxidants and both fat soluble antioxidants: vitamin E, beta-carotene, coenzyme Q10, ascorbic acid 6-palmitate and water soluble antioxidants: selenium, trolox C, acetylcysteine, coenzyme Q0, (+)-catechin, showed the highest protection.

CONTROLLED TERM: Check Tags: Male
Acetylcysteine: PD, pharmacology
Animals
*Antioxidants: PD, pharmacology
Ascorbic Acid: AA, analogs & derivatives
Ascorbic Acid: PD, pharmacology
Canthaxanthin: PD, pharmacology
Carotenoids: PD, pharmacology
Catechin: PD, pharmacology
Chromans: PD, pharmacology
Heart: DE, drug effects
Liver: DE, drug effects
*Liver: ME, metabolism
Lung: DE, drug effects
*Lung: ME, metabolism
*Myocardium: ME, metabolism
*Oxidative Stress: DE, drug effects
Rats
Rats, Sprague-Dawley
Research Support, U.S. Gov't, P.H.S.
Selenium: PD, pharmacology
Spleen: DE, drug effects
***Spleen: ME, metabolism**
Ubiquinone: PD, pharmacology
Vitamin E: PD, pharmacology
beta Carotene
CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); 137-66-6 (6-O-palmitoylascorbic acid); **1406-18-4 (Vitamin E)**; 154-23-4 (Catechin); 36-88-4 (Carotenoids); **50-81-7 (Ascorbic Acid)**; 514-78-3 (Canthaxanthin); 56305-04-5 (6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid); **616-91-1 (Acetylcysteine)**; **7235-40-7 (beta Carotene)**; **7782-49-2 (Selenium)**
CHEMICAL NAME: 0 (Antioxidants); 0 (Chromans)

L453 ANSWER 23 OF 79 MEDLINE on STN
ACCESSION NUMBER: 95272328 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 7752835
TITLE: Apparent partial remission of breast cancer in 'high risk' patients supplemented with nutritional antioxidants, essential fatty acids and coenzyme Q10.
AUTHOR: Lockwood K; Moesgaard S; Hanioka T; Folkers K
CORPORATE SOURCE: Private Outpatient Clinic, Copenhagen, Denmark.
SOURCE: Molecular aspects of medicine, **(1994)** Vol. 15 Suppl, pp. s231-40.
Journal code: 7603128. ISSN: 0098-2997.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CASE REPORTS)
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199506
ENTRY DATE: Entered STN: 29 Jun 1995
Last Updated on STN: 29 Jun 1995
Entered Medline: 21 Jun 1995

ABSTRACT:
Thirty-two typical patients with breast cancer, aged 32-81 years and classified 'high risk' because of tumor spread to the lymph nodes in the axilla, were studied for 18 months following an Adjuvant Nutritional Intervention in Cancer protocol (ANICA protocol). The nutritional protocol was added to the surgical and therapeutic treatment of breast cancer, as required by regulations in Denmark. The added treatment was a combination of nutritional antioxidants (Vitamin C: 2850 mg, Vitamin E: 2500 iu, beta-carotene 32.5 iu, selenium 387 micrograms plus secondary vitamins and minerals), essential fatty acids (1.2 g gamma linolenic acid and 3.5 g n-3 fatty acids) and Coenzyme Q10 (90 mg per day). The ANICA protocol is based on the concept of testing the synergistic effect of those categories of nutritional supplements, including vitamin Q10, previously having shown deficiency and/or therapeutic value as single elements in diverse forms of cancer, as cancer may be synergistically related to diverse biochemical dysfunctions and vitamin deficiencies. Biochemical markers, clinical condition, tumor spread, quality of life parameters and survival were followed during the trial. Compliance was excellent. The main observations were: (1) none of the patients died during the study period. (the expected number was four.) (2) none of the patients showed signs of further distant metastases. (3) quality of life was improved (no weight loss, reduced use of pain killers). (4) six patients showed apparent partial remission.

CONTROLLED TERM: Check Tags: Female
Adult
Aged
Aged, 80 and over
Antineoplastic Agents: TU, therapeutic use
*Antioxidants: TU, therapeutic use
Ascorbic Acid: TU, therapeutic use
Biological Markers
*Breast Neoplasms: DT, drug therapy
Breast Neoplasms: RT, radiotherapy
Breast Neoplasms: SU, surgery
Carotenoids: TU, therapeutic use
Chemotherapy, Adjuvant
Combined Modality Therapy
*Fatty Acids, Essential: TU, therapeutic use
Follow-Up Studies
Humans
Lymphatic Metastasis

Mastectomy
Middle Aged
Neoplasm Metastasis: PC, prevention & control
Quality of Life
Remission Induction
Risk
Selenium: TU, therapeutic use
Treatment Outcome
*Ubiquinone: AA, analogs & derivatives
Ubiquinone: TU, therapeutic use
Vitamin E: TU, therapeutic use
beta Carotene

CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); 1406-18-4 (Vitamin E); 303-98-0 (coenzyme Q10); 36-88-4 (Carotenoids); 50-81-7 (Ascorbic Acid); 7235-40-7 (beta Carotene); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antineoplastic Agents); 0 (Antioxidants); 0 (Biological Markers); 0 (Fatty Acids, Essential)

L453 ANSWER 24 OF 79 MEDLINE on STN

ACCESSION NUMBER: 94012300 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 8407659

TITLE: Effects of **vitamin E** and **selenium** on immune responses of peripheral blood, colostrum, and milk leukocytes of sows.

AUTHOR: Wuryastuti H; Stowe H D; Bull R W; Miller E R

CORPORATE SOURCE: Department of Large Animal Clinical Sciences, Michigan State University, East Lansing 48824.

SOURCE: Journal of animal science, **(1993 Sep)** Vol. 71, No. 9, pp. 2464-72.
Journal code: 8003002. ISSN: 0021-8812.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199311

ENTRY DATE: Entered STN: 17 Jan 1994
Last Updated on STN: 17 Jan 1994
Entered Medline: 23 Nov 1993

ABSTRACT:
This study was designed to assess how dietary **vitamin E** (E) and (or) **selenium** (**Se**) concentrations affect immune responses of gestating and peripartum sows. Multiparous sows (24), assigned to one of four groups at breeding, were fed ensiled, shelled corn-soybean meal-based diets without supplemental E or **Se** (-E-**Se**), with .3 mg of **Se**/kg (-E+**Se**), with 60 IU of E/kg (+E-**Se**), or with both supplemental E and **Se** (+E+**Se**) during gestation and to d 4 of lactation. Blood was obtained on 0, 30, 60, and 90 d of gestation and at parturition for serum E and **Se** assays. Lymphocytes and polymorphonuclear cells (PMN) were isolated from the blood, colostrum, and 4-d milk samples for immune studies. Compared with the control (+E+**Se**) diet, the -E-**Se** diet reduced ($P < .05$) the serum tocopherol and **Se** concentrations, the mitogenic responses of lymphocytes of peripheral blood (PBL) and colostrum (CL), the phagocytic activity of blood and colostral PMN, and the microbicidal activity of blood, colostral, and milk PMN. The -E+**Se** diet reduced ($P < .05$) the serum tocopherol concentrations, the mitogenic responses of PBL and CL, and the phagocytic activity of PBL. The +E-**Se** diet reduced ($P < .05$) serum ***Se*** concentrations and the phagocytic activity of PMN. The data indicated that E restriction depressed PBL and PMN immune functions, whereas ***Se*** restriction depressed mainly PMN function.

CONTROLLED TERM: Check Tags: Female
Animals
Blood Bactericidal Activity: DE, drug effects
Colostrum: CY, cytology
Colostrum: DE, drug effects
*Colostrum: IM, immunology
Glutathione Peroxidase: BL, blood
Immunity, Cellular: DE, drug effects
Leukocyte Count: VE, veterinary
Leukocytes: DE, drug effects
Leukocytes: IM, immunology
Lymphocyte Activation: DE, drug effects
Milk: CY, cytology
Milk: DE, drug effects
***Milk: IM, immunology**
Phagocytosis: DE, drug effects
Pregnancy
Selenium: BL, blood
Selenium: DF, deficiency
***Selenium: PD, pharmacology**
Swine: BL, blood
*Swine: IM, immunology
Vitamin E: BL, blood
***Vitamin E: PD, pharmacology**
Vitamin E Deficiency: BL, blood
Vitamin E Deficiency: IM, immunology
Vitamin E Deficiency: VE, veterinary
CAS REGISTRY NO.: **1406-18-4 (Vitamin E); 7782-49-2 (Selenium)**
CHEMICAL NAME: EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 25 OF 79 MEDLINE on STN
ACCESSION NUMBER: 93099423 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 1463974
TITLE: Biomarker assessments in asbestos-exposed workers as indicators for selective prevention of mesothelioma or bronchogenic carcinoma: rationale and practical implementations.
AUTHOR: Pluygers E; Baldewyns P; Minette P; Beauduin M; Gourdin P; Robinet P
CORPORATE SOURCE: UNEP-RISCAPE, Unit for Evaluation and Prevention of Carcinogenesis Risks of Occupational and Environmental Origin, Haine-Saint-Paul, Belgium.
SOURCE: European journal of cancer prevention : the official journal of the European Cancer Prevention Organisation (ECP), **(1992 Feb)** Vol. 1, No. 2, pp. 129-38.
Journal code: 9300837. ISSN: 0959-8278.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199301
ENTRY DATE: Entered STN: 5 Feb 1993
Last Updated on STN: 3 Feb 1997
Entered Medline: 15 Jan 1993

ABSTRACT:
In the first part of this study we have shown how the serum levels of four selected tumour markers, namely tissue polypeptide antigen (TPA), carcino-embryonic antigen (CEA), hyaluronic acid (HA) and ferritin, display patterns characteristic of mesothelioma (M) or bronchogenic carcinoma (BC) in

asbestos-exposed workers, and we hypothesize that the differences in marker patterns correspond to differences in carcinogenesis mechanisms. In a preliminary study, we found these specific marker patterns in 5/19 exposed workers of whom only one demonstrated any radiological signs of disease. Thus these specific marker patterns may be early events, occurring long (possibly years) before the classical radiological signs of exposure to asbestos. Accordingly they afford an optimal opportunity for prevention which should be adapted to the carcinogenesis mechanism as it is revealed by the marker pattern; it is aimed at antagonizing free radical carcinogenesis in all persons with TPA levels in excess of 100 U/l or Ferritin in excess of 400 ng/ml, and at inhibiting chemical carcinogenesis in those having elevated CEA levels (over 3 ng/ml). The mechanisms involved in these inhibitory processes are described and discussed, as well as the practical implementations that proceed from them. A prevention trial is now being started among 300 active and retired workers of an asbestos-cement works in northern France; the design of the study is presented. This prevention programme should be maintained over many years and holds a strong potential for reducing the untoward effects of exposure to asbestos.

CONTROLLED TERM: Check Tags: Male
Acetylcysteine: TU, therapeutic use
Antigens, Neoplasm: BL, blood
*Asbestos: AE, adverse effects
Ascorbic Acid: TU, therapeutic use
Carcinoembryonic Antigen: BL, blood
Carcinoma, Bronchogenic: BL, blood
*Carcinoma, Bronchogenic: PC, prevention & control
Carotenoids: BL, blood
Carotenoids: TU, therapeutic use
Cohort Studies
Ferritin: BL, blood
Humans
Hyaluronic Acid: BL, blood
Intervention Studies
Longitudinal Studies
Lung Neoplasms: BL, blood
*Lung Neoplasms: PC, prevention & control
Mesothelioma: BL, blood
*Mesothelioma: PC, prevention & control
Middle Aged
Occupational Diseases: BL, blood
*Occupational Diseases: PC, prevention & control
*Occupational Exposure
Peptides: BL, blood
Riboflavin: TU, therapeutic use
Selenium: BL, blood
Selenium: TU, therapeutic use
Tissue Polypeptide Antigen
*Tumor Markers, Biological: BL, blood
Vitamin A: BL, blood
Vitamin E: BL, blood
Vitamin E: TU, therapeutic use
beta Carotene

CAS REGISTRY NO.: 11103-57-4 (Vitamin A); 1332-21-4 (Asbestos); 1406-18-4 (Vitamin E); 36-88-4 (Carotenoids); 50-81-7 (Ascorbic Acid); 616-91-1 (Acetylcysteine); 7235-40-7 (beta Carotene); 7782-49-2 (Selenium); 83-88-5 (Riboflavin); 9004-61-9 (Hyaluronic Acid); 9007-73-2 (Ferritin)

CHEMICAL NAME: 0 (Antigens, Neoplasm); 0 (Carcinoembryonic Antigen); 0 (Peptides); 0 (Tissue Polypeptide Antigen); 0 (Tumor Markers, Biological)

L453 ANSWER 26 OF 79 MEDLINE on STN
ACCESSION NUMBER: 89376605 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 2776226
TITLE: Full replacement of 2-mercaptoethanol by cysteine plus selenium compounds in augmenting DNA synthesis of mitogen-stimulated mouse spleen lymphocytes.
AUTHOR: Ishii T; Sugita Y; Bannai S
CORPORATE SOURCE: Institute of Basic Medical Sciences, University of Tsukuba, Ibaraki-ken, Japan.
SOURCE: Cell structure and function, **(1989 Jun)** Vol. 14, No. 3, pp. 287-97.
Journal code: 7608465. ISSN: 0386-7196.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198910
ENTRY DATE: Entered STN: 9 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 26 Oct 1989

ABSTRACT:
Mouse spleen lymphocytes require 2-mercaptoethanol for maximal mitogenic activation in vitro. Previous studies indicate that the lymphocytes are defective in the cystine transport activity and that they require 2-mercaptoethanol to utilize cystine. 2-Mercaptoethanol catalytically carries cysteine moiety into the cells in a mixed disulfide form. Because cysteine is easily oxidized to cysteine in the culture medium, it has been not easy to precisely examine the effect of near-physiological concentrations of cysteine on the activation of lymphocytes. By controlling the cysteine content in the medium, we have reviewed the effect of cysteine to see if cysteine replaces 2-mercaptoethanol in enhancing the DNA synthesis of lipopolysaccharide-stimulated lymphocytes. It was found that cysteine was less effective than 2-mercaptoethanol, and that cysteine fully replaced 2-mercaptoethanol when a selenium compound was supplemented. The effects of cysteine and selenium compounds were apparently independent and additive. Among the selenium compounds examined, sodium selenite and L-selenocystine were much more effective in stimulating DNA synthesis than sodium selenate and L-selenomethionine.

CONTROLLED TERM: Check Tags: Female; Male
Animals
Antioxidants: ME, metabolism
Cell Division: DE, drug effects
*Cysteine: ME, metabolism
Cysteine: PD, pharmacology
*DNA: ME, metabolism
Glutathione: ME, metabolism
Glutathione Peroxidase: ME, metabolism
***Lymphocytes: DE, drug effects**
Lymphocytes: EN, enzymology
Lymphocytes: ME, metabolism
*Mercaptoethanol: ME, metabolism
Mice
*Mitogens: PD, pharmacology
Phenanthrolines: PD, pharmacology
Research Support, Non-U.S. Gov't
*Selenium: ME, metabolism
Selenium: PD, pharmacology
Serum Albumin, Bovine: PD, pharmacology
***Spleen: CY, cytology**

Vitamin E: PD, pharmacology

CAS REGISTRY NO.: **1406-18-4 (Vitamin E)**; 52-90-4 (Cysteine); 60-24-2 (Mercaptoethanol); **70-18-8 (Glutathione)**; 73348-75-1 (bathocuproine sulfonate); **7782-49-2 (Selenium)**; 9007-49-2 (DNA)

CHEMICAL NAME: 0 (Antioxidants); 0 (Mitogens); 0 (Phenanthrolines); 0 (Serum Albumin, Bovine); EC 1.11.1.9 (Glutathione Peroxidase)

L453 ANSWER 27 OF 79 MEDLINE on STN

ACCESSION NUMBER: 89211355 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 2540027

TITLE: [Antioxidant activity of ubiquinone-9 and its combinations with vitamin E and sodium selenite in toxic lesions of the liver].
Antioksidantnaia aktivnost' ubikhinona-9 i ego kombinatsii s vitaminom E i selenitom natriia pri toksicheskom porazhenii pecheni.

AUTHOR: Vinogradova L F; Kharlitskaia E V; Mirzoian Zh A

SOURCE: Farmakologiia i toksikologiia, **(1989 Jan-Feb)** Vol. 52, No. 1, pp. 53-6.
Journal code: 16920420R. ISSN: 0014-8318.

PUB. COUNTRY: USSR

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: Russian

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198906

ENTRY DATE: Entered STN: 6 Mar 1990
Last Updated on STN: 6 Mar 1990
Entered Medline: 7 Jun 1989

ABSTRACT:
It was established that ubiquinone-9 (30 mg/kg per course) decreases in rats the content of primary products of lipid peroxidation--diene conjugates--in the liver by 12 times greater than vitamin E (a course dose of 30 mg/kg). Ubiquinone-9, vitamin E and sodium selenite (a course dose of 90 mg/kg) equally reduced the content of a secondary product of lipid peroxidation--malon dialdehyde. In this case the activity of sodium selenite was 300 times higher than the activity of ubiquinone-9 and vitamin E. The use of ubiquinone-9 in combination with vitamin E and sodium selenite potentiated the antioxidant effect.

CONTROLLED TERM: Check Tags: Male
Animals
*Antioxidants
*Carbon Tetrachloride Poisoning: DT, drug therapy
Comparative Study
Drug Evaluation, Preclinical
Drug Therapy, Combination
English Abstract
*Hepatitis, Toxic: DT, drug therapy
Hepatitis, Toxic: ET, etiology
Hepatitis, Toxic: ME, metabolism
Lipid Peroxidation: DE, drug effects
Liver: DE, drug effects
Liver: ME, metabolism
Rats
***Selenium: TU, therapeutic use**
Sodium Selenite
Time Factors
***Ubiquinone: TU, therapeutic use**
***Vitamin E: TU, therapeutic use**

Xylenes: TO, toxicity
CAS REGISTRY NO.: 10102-18-8 (Sodium Selenite); 1339-63-5 (Ubiquinone); 1406-18-4 (Vitamin E); 303-97-9 (ubiquinone 9); 68-36-0 (hexachloro-4-xylene); 7782-49-2 (Selenium)
CHEMICAL NAME: 0 (Antioxidants); 0 (Xylenes)

L453 ANSWER 28 OF 79 MEDLINE on STN
ACCESSION NUMBER: 88203704 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3283755
TITLE: Prolongation of the survival time of tumor bearing Wistar rats through a simultaneous oral administration of vitamins C + E and selenium with glutathione.
AUTHOR: Kallistratos G I; Fasske E E; Karkabounas S; Charalambopoulos K
CORPORATE SOURCE: Department of Experimental Physiology, Faculty of Medicine, University of Ioannina, Greece.
SOURCE: Progress in clinical and biological research, **(1988)** Vol. 259, pp. 377-89. Ref: 30
Journal code: 7605701. ISSN: 0361-7742.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198806
ENTRY DATE: Entered STN: 8 Mar 1990
Last Updated on STN: 8 Mar 1990
Entered Medline: 9 Jun 1988
CONTROLLED TERM: Animals
***Ascorbic Acid: TU, therapeutic use**
Benzo(a)pyrene
***Glutathione: TU, therapeutic use**
Humans
Neoplasms, Experimental: CI, chemically induced
*Neoplasms, Experimental: DT, drug therapy
Neoplasms, Experimental: PA, pathology
Rats
Rats, Inbred Strains
***Selenium: TU, therapeutic use**
***Vitamin E: TU, therapeutic use**
CAS REGISTRY NO.: 1406-18-4 (Vitamin E); 50-32-8 (Benzo(a)pyrene); 50-81-7 (Ascorbic Acid); 70-18-8 (Glutathione); 7782-49-2 (Selenium)

L453 ANSWER 29 OF 79 MEDLINE on STN
ACCESSION NUMBER: 87261148 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3602007
TITLE: Effect of dietary **selenium** and **vitamin E** deficiencies in the chicken on Con A induced splenocyte proliferation.
AUTHOR: Marsh J A; Dietert R R; Combs G F Jr
SOURCE: Progress in clinical and biological research, **(1987)** Vol. 238, pp. 333-45.
Journal code: 7605701. ISSN: 0361-7742.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198708
ENTRY DATE: Entered STN: 5 Mar 1990

Last Updated on STN: 5 Mar 1990
Entered Medline: 20 Aug 1987

CONTROLLED TERM: Animal Nutrition
Animals
Cell Survival
***Chickens: PH, physiology**
Concanavalin A: PD, pharmacology
Glutathione Peroxidase: BL, blood
In Vitro
*Lymphocyte Activation
Research Support, U.S. Gov't, Non-P.H.S.
***Selenium: DF, deficiency**
Spleen: IM, immunology
***Vitamin E Deficiency: IM, immunology**

CAS REGISTRY NO.: 11028-71-0 (Concanavalin A); **7782-49-2 (Selenium)**
CHEMICAL NAME: EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 30 OF 79 MEDLINE on STN
ACCESSION NUMBER: 86287434 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 3737610
TITLE: Effect of **selenium** and **vitamin E** dietary deficiencies on chick lymphoid organ development.
AUTHOR: Marsh J A; Combs G F Jr; Whitacre M E; Dietert R R
SOURCE: Proceedings of the Society for Experimental Biology and Medicine. Society for Experimental Biology and Medicine (New York, N. Y.), **(1986 Sep)** Vol. 182, No. 4, pp. 425-36.
Journal code: 7505892. ISSN: 0037-9727.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198609
ENTRY DATE: Entered STN: 21 Mar 1990
Last Updated on STN: 21 Mar 1990
Entered Medline: 18 Sep 1986

ABSTRACT:
Diets specifically deficient in **selenium** (**Se**) and/or ***vitamin*** **E** or adequate in both nutrients were fed to chicks from the time of hatching. Lymphoid organs (bursa, thymus, and in some instances, spleen) were collected from chicks 7-35 days of age. Growth of the chicks fed these diets was monitored over the experimental period as was lymphoid organ growth. The development of the primary lymphoid organs was further assessed by histological techniques and the organ contents of ***vitamin*** **E** (alpha-tocopherol) and **Se** were determined. Specific deficiencies of either **Se** or **vitamin** ***E*** were found to significantly impair bursal growth as did a combined deficiency. Thymic growth was impaired only by the combined deficiency diet. Severe histopathological changes in the bursa resulted from the combined deficiency and these were detectable by 10-14 days after hatching. These changes were characterized by a gradual degeneration of the epithelium and an accompanying depletion of lymphocytes. Similar changes, although slower to develop and less severe, were observed in the thymus as a result of the combined deficiency. When both serum and tissue levels of **vitamin** ***E*** and **Se** were monitored, it was observed that these were rapidly and independently depleted by the specific deficiency diets. These data suggest that the primary lymphoid organs are major targets of **Se** and **vitamin E** dietary deficiencies and provide a possible mechanism by which immune function may be impaired.

CONTROLLED TERM: Check Tags: Male
Animals
Bursa of Fabricius: PA, pathology
Chickens
Glutathione Peroxidase: AN, analysis
Leukocyte Count
Lymphocytes
Lymphoid Tissue: AN, analysis
***Lymphoid Tissue: GD, growth & development**
Research Support, Non-U.S. Gov't
***Selenium: DF, deficiency**
Thymus Gland: PA, pathology
Vitamin E: AN, analysis
Vitamin E Deficiency: IM, immunology
Vitamin E Deficiency: PA, pathology
***Vitamin E Deficiency: PP, physiopathology**

CAS REGISTRY NO.: **1406-18-4 (Vitamin E); 7782-49-2 (Selenium)**

CHEMICAL NAME: EC 1.11.1.9 (**Glutathione** Peroxidase)

L453 ANSWER 31 OF 79 MEDLINE on STN

ACCESSION NUMBER: 85234902 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 3924956

TITLE: Effects of antioxidants on oxidant-induced sister chromatid exchange formation.

AUTHOR: Weitberg A B; Weitzman S A; Clark E P; Stossel T P

CONTRACT NUMBER: CA-07147-02 (NCI)
CA-09321 (NCI)

SOURCE: The Journal of clinical investigation, **(1985 Jun)** Vol. 75, No. 6, pp. 1835-41.
Journal code: 7802877. ISSN: 0021-9738.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Space Life Sciences

ENTRY MONTH: 198507

ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 3 Mar 2000
Entered Medline: 30 Jul 1985

ABSTRACT:
Stimulated human phagocytes produce sister chromatid exchanges in cultured mammalian cells by a mechanism involving oxygen metabolites. Experiments were designed to determine whether antioxidants inhibit this process. Superoxide dismutase, catalase, and hydroxyl radical scavengers (benzoate, mannitol) protected target Chinese hamster ovary cells from phagocyte-induced sister chromatid exchanges, implicating the involvement of hydroxyl radicals in this chromosomal damage. **N-acetylcysteine** and **beta-***carotene*** were also protective. alpha-Tocopherol (greater than 5 microM) protected target cells exposed to phagocytes but not to enzymatically generated oxidants when the vitamin was added just before the source of oxygen radicals, suggesting, as reported by others, that the principal action of tocopherol in this setting was to inhibit the release of oxidants from phagocytes. On the other hand, cultivation of target cells with supplemental tocopherol protected them from the toxic effects of the enzymatic oxidant-producing system, indicating a role for membrane-associated free radicals in the mechanism of sister chromatid exchange induction. Low concentrations of sodium selenite (0.1-1.0 microM) protected the target cells. However, higher concentrations (10 microM) of selenite had no effect on oxidant-induced sister chromatid exchange formation, and 0.1 mM selenite increased the number of exchanges.

Sodium selenite concentrations of 0.1 mM also decreased the intracellular ***glutathione*** concentration of target cells during an oxidant stress, and reducing target cell **glutathione** concentrations with buthionine sulfoximine increased their sensitivity to oxygen-related chromosomal damage. Therefore, the potentiation of oxygen radical-induced chromosomal damage observed with high concentrations of selenite may result from a decrease in the thiol antioxidant defense systems within the cell. The findings suggest that the hydroxyl radical has an important role in the production of phagocyte-induced cytogenetic injury, membrane-derived intermediates may be involved, depletion of intracellular **glutathione** renders cells more susceptible to this injury, and supplementation of target cells with antioxidants can protect them from oxygen radical-generated chromosomal injury.

CONTROLLED TERM: Check Tags: Female
Acetylcysteine: PD, pharmacology
Animals
Benzoates: PD, pharmacology
Benzoic Acid
Carotenoids: PD, pharmacology
Catalase: ME, metabolism
Cricetinae
Cricetulus
Free Radicals
Glutathione: ME, metabolism
Humans
Mannitol: PD, pharmacology
Ovary
Oxygen: AI, antagonists & inhibitors
*Oxygen: TO, toxicity
Phagocytes: PH, physiology
Research Support, Non-U.S. Gov't
Research Support, U.S. Gov't, P.H.S.
Selenious Acid
Selenium: PD, pharmacology
*Sister Chromatid Exchange: DE, drug effects
Superoxide Dismutase: ME, metabolism
Vitamin E: PD, pharmacology
Xanthine Oxidase: DU, diagnostic use
beta Carotene

CAS REGISTRY NO.: **1406-18-4 (Vitamin E)**; 36-88-4 (Carotenoids); **616-91-1 (Acetylcysteine)**; 65-85-0 (Benzoic Acid); 69-65-8 (Mannitol); **70-18-8 (Glutathione)**; **7235-40-7 (beta Carotene)**; 7782-44-7 (Oxygen); **7782-49-2 (Selenium)**; 7783-00-8 (Selenious Acid)

CHEMICAL NAME: 0 (Benzoates); 0 (Free Radicals); EC 1.1.3.22 (Xanthine Oxidase); EC 1.11.1.6 (Catalase); EC 1.15.1.1 (Superoxide Dismutase)

L453 ANSWER 32 OF 79 MEDLINE on STN
ACCESSION NUMBER: 84190711 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 6325854
TITLE: Rationales for micronutrient supplementation in diabetes.
AUTHOR: McCarty M F; Rubin E J
SOURCE: Medical hypotheses, **(1984 Feb)** Vol. 13, No. 2, pp. 139-51. Ref: 125
Journal code: 7505668. ISSN: 0306-9877.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 198406
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 8 Jun 1984

ABSTRACT:
Available evidence--some well-documented, some only preliminary--suggests that properly-designed nutritional insurance supplementation may have particular value in diabetes. Comprehensive micronutrient supplementation providing ample doses of antioxidants, yeast-chromium, magnesium, zinc, pyridoxine, gamma-linolenic acid, and carnitine, may aid glucose tolerance, stimulate immune defenses, and promote wound healing, while reducing the risk and severity of some of the secondary complications of diabetes.

CONTROLLED TERM: Animals
Antioxidants: TU, therapeutic use
Ascorbic Acid: TU, therapeutic use
Calcium: TU, therapeutic use
Carnitine: TU, therapeutic use
Chromium: TU, therapeutic use
*Diabetes Mellitus: DT, drug therapy
Humans
Linolenic Acids: TU, therapeutic use
Magnesium: TU, therapeutic use
Pyridoxine: TU, therapeutic use
Selenium: TU, therapeutic use
Thioctic Acid: TU, therapeutic use
Ubiquinone: TU, therapeutic use
Vitamin E: TU, therapeutic use
Zinc: TU, therapeutic use
gamma-Linolenic Acid

CAS REGISTRY NO.: 1339-63-5 (Ubiquinone); 1406-18-4 (Vitamin E); 50-81-7 (Ascorbic Acid); 506-26-3 (gamma-Linolenic Acid); 541-15-1 (Carnitine); 62-46-4 (Thioctic Acid); 65-23-6 (Pyridoxine); 7439-95-4 (Magnesium); 7440-47-3 (Chromium); 7440-66-6 (Zinc); 7440-70-2 (Calcium); 7782-49-2 (Selenium)

CHEMICAL NAME: 0 (Antioxidants); 0 (Linolenic Acids)

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ACCESSION NUMBER: 2003:50856 BIOSIS Full-text
DOCUMENT NUMBER: PREV200300050856
TITLE: Improved antioxidant and fatty acid status of patients with cystic fibrosis after antioxidant supplementation is linked to improved lung function.
AUTHOR(S): Wood, Lisa G.; Fitzgerald, Dominic A.; Lee, Alexander K.; Garg, Manohar L. [Reprint Author]
CORPORATE SOURCE: Discipline of Nutrition and Dietetics, Faculty of Health, University of Newcastle, Callaghan, NSW, 2308, Australia
ndmg@medicine.newcastle.edu.au
SOURCE: American Journal of Clinical Nutrition, (**January 2003**) Vol. 77, No. 1, pp. 150-159. print.
ISSN: 0002-9165 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Jan 2003
Last Updated on STN: 22 Jan 2003

ABSTRACT:Background: Oxidative stress, as measured by 8-iso-prostaglandin F2alpha (8-iso-PGF2alpha), and depleted antioxidant defenses were shown in

stable cystic fibrosis (CF) patients. The plasma fatty acid status of CF patients was linked to oxidative stress after respiratory exacerbations. Objective: We examined changes in plasma 8-iso-PGF2alpha, antioxidant defenses, plasma fatty acid status, and clinical markers resulting from short-term antioxidant supplementation. Design: Forty-six CF patients were randomly assigned to either group A (low dose of supplement (10 mg vitamin E and 500 mug vitamin A)) or group B (high dose of supplement (200 mg vitamin E, 300 mg vitamin C, 25 mg beta-carotene, 90 mug Se, and 500 mug vitamin A)). Plasma concentrations of 8-iso-PGF2alpha, **vitamins E** and C, ***beta*** **-carotene**, **zinc**, **selenium**, and copper; plasma fatty acid composition; erythrocyte **glutathione** peroxidase (EC 1.11.1.9) and superoxide dismutase (EC 1.15.1.1) activities; lung function; and dietary intake were measured before and after 8 wk of supplementation. Results: Antioxidant defenses in group B improved, whereas those in group A did not: in groups B and A, the mean (+-SEM) changes (DELTA) in vitamin E were 10.6 +- 1.5 and -1.9 +- 0.9 mumol/L, respectively ($P < 0.001$), DELTAbeta-carotene were 0.1 +- 0.04 and -0.01 +- 0.02 mumol/L, respectively ($P = 0.007$), DELTAselenium were 0.51 +- 0.10 and -0.09 +- 0.04 mumol/L, respectively ($P < 0.001$), and DELTAglutathione peroxidase activity were 1.3 +- 0.3 and -0.3 +- 0.6 U/g hemoglobin, respectively ($P = 0.016$). There were no significant differences between the groups in DELTA8-iso-PGF2alpha, DELTAvitamin C, DELTAfatty acid composition, DELTAsuperoxide dismutase activity, DELTAlung function, or DELTAwhite cell count. Within group B, DELTAbeta-carotene correlated with DELTApercentage of forced vital capacity ($r = 0.586$, $P = 0.005$), DELTAselenium correlated with DELTApercentage of forced expiratory volume in 1 s ($r = 0.440$, $P = 0.046$), and DELTAplasma fatty acid concentrations correlated with DELTApercentage of forced expiratory volume in 1 s ($r = 0.583$, $P = 0.006$) and DELTA8-iso-PGF2alpha ($r = 0.538$, $P = 0.010$). Conclusions: Whereas increased beta-carotene, selenium, and fatty acid concentrations are linked to improved lung function, increased plasma fatty acid concentrations are linked to oxidative stress. If oxidative stress is deemed to be important to the clinical outcome of CF patients, means of reducing oxidative stress while maintaining a high-fat, high-energy diet must be investigated.

CONCEPT CODE:
Cytology - Animal 02506
Cytology - Human 02508
Genetics - Human 03508
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Porphyrins and bile pigments 10065
Biochemistry studies - Lipids 10066
Biochemistry studies - Minerals 10069
Enzymes - General and comparative studies: coenzymes 10802
Pathology - Therapy 12512
Metabolism - Metabolic disorders 13020
Nutrition - General studies, nutritional status and methods 13202
Digestive system - Pathology 14006
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Respiratory system - Physiology and biochemistry 16004
Respiratory system - Pathology 16006
Pediatrics 25000
Immunology - General and methods 34502

INDEX TERMS:
Major Concepts
Biochemistry and Molecular Biophysics; Nutrition; Pulmonary Medicine (Human Medicine, Medical Sciences)

INDEX TERMS: Parts, Structures, & Systems of Organisms
erythrocyte: blood and lymphatics; lung: respiratory system, function; plasma: blood and lymphatics; **white cell: immune system**

INDEX TERMS: Diseases
cystic fibrosis: digestive system disease, genetic disease, metabolic disease, respiratory system disease, diet therapy
Cystic Fibrosis (MeSH)

INDEX TERMS: Chemicals & Biochemicals
8-iso-prostaglandin F-2-alpha [8-iso-PGF-2-alpha]: concentrations; antioxidant: dietary supplement; beta-carotene: antioxidant, concentrations, dietary supplement; copper: concentrations; fatty acid: concentrations; glutathione peroxidase [EC 1.11.1.9]; hemoglobin; selenium: antioxidant, concentrations, dietary supplement; superoxide dismutase [EC 1.15.1.1]; vitamin A: antioxidant, concentrations, dietary supplement; vitamin C: antioxidant, concentrations, dietary supplement; vitamin E: antioxidant, concentrations, dietary supplement; zinc: concentrations

INDEX TERMS: Methods & Equipment
antioxidant supplementation: clinical techniques, therapeutic and prophylactic techniques

INDEX TERMS: Miscellaneous Descriptors
antioxidant defenses; dietary intake; fatty acid status; forced expiratory volume; forced vital capacity; high-fat high-energy diet; oxidative stress

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common): adolescent, preadolescent, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 27415-26-5 (8-iso-prostaglandin F-2-alpha)
27415-26-5 (8-iso-PGF-2-alpha)
7235-40-7 (beta-carotene)
7440-50-8 (copper)
9013-66-5 (glutathione peroxidase)
9013-66-5 (EC 1.11.1.9)
7782-49-2 (selenium)
9054-89-1 (superoxide dismutase)
9054-89-1 (EC 1.15.1.1)
68-26-8Q (vitamin A)
11103-57-4Q (vitamin A)
50-81-7 (vitamin C)
1406-18-4 (vitamin E)
7440-66-6 (zinc)

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ACCESSION NUMBER: 2003:372547 BIOSIS Full-text

DOCUMENT NUMBER: PREV200300372547

TITLE: Effects of intraperitoneally injected selenium and vitamin E in rats anesthetized with halothane.

AUTHOR(S): Karakilcik, Ali Ziya [Reprint Author]; Hayat, Ali; Zerin, Mustafa; Cay, Mehmet

CORPORATE SOURCE: Faculty of Medicine, Department of Physiology, Harran University, 63300, Sanliurfa, Turkey
azkar@harran.edu.tr
SOURCE: Journal of Trace Elements in Medicine and Biology, (2003) Vol. 17, No. 1, pp. 33-38. print.
ISSN: 0946-672X (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Aug 2003
Last Updated on STN: 13 Aug 2003
ABSTRACT:Halothane, commonly used for anesthetizing humans and animals, is one of the most important volatile anesthetics and may cause the formation of free radicals during its biotransformation. Free radicals may lead to degeneration of liver cells. **Vitamin E** and **glutathione** peroxidase (**GSH**-Px) containing **selenium** are two natural antioxidants, and these may protect the cellular lipid and lipoproteins against oxidative damage caused by free radicals. Therefore, the purposes of the present study were to investigate the probable protective effects of intraperitoneally administered Se and vitamin E on liver enzymes and to determine some other hematological parameters in the halothane anesthesia of rats. All rats were randomly divided into five groups. The first group was used as a control, and physiological saline (0.9%) was intraperitoneally injected into these animals as a placebo. The second group was used as an anesthesia control group and was only anesthetized with halothane for two hours. The third group received intraperitoneally administered Se (Na2SeO3, 0.3 mg/200 g body weight), the fourth group vitamin E (dl-alpha-tocopheryl acetate, 100 mg/kg body weight), and the fifth group a Se plus vitamin E combination (Na2SeO3, 0.3 mg/200 g body weight+dl-alpha-tocopheryl acetate, 100 mg/kg body weight). The activities of aspartate aminotransferase, alanine aminotransferase and alkaline phosphatase, triglycerides, erythrocyte counts, the packet-cell volume, hemoglobin concentrations and neutrophyle rates significantly increased ($p<0.05$ to $p<0.01$) after halothane anesthesia and returned to near control levels after Se, vitamin E and Se plus vitamin E injections. The values of cholesterol, total protein, white blood cell counts and lymphocyte rates significantly decreased ($p<0.05$ to $p<0.01$) in the anesthesia control group. However, the levels of albumin, total bilirubin, creatinine, the mean corpuscular volume, the mean corpuscular hemoglobin, and the mean corpuscular hemoglobin concentration were not statistically influenced. In conclusion, we have determined that halothane anesthesia affected some liver enzymes and some other biochemical and hematological parameters. Se, vitamin E and their combination may prevent the increase of liver enzymes after halothane anesthesia. Based upon these results, Se and vitamin E may play an important role in the indication of hepatic cellular injury produced by halothane.
CONCEPT CODE: Cytology - Animal 02506
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Porphyrins and bile pigments 10065
Biochemistry studies - Lipids 10066
Biochemistry studies - Minerals 10069
Enzymes - General and comparative studies: coenzymes 10802
Pathology - Therapy 12512
Digestive system - Physiology and biochemistry 14004
Digestive system - Pathology 14006
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Pharmacology - Neuropharmacology 22024

Toxicology - General and methods 22501
Immunology - General and methods 34502

INDEX TERMS: Major Concepts
Toxicology

INDEX TERMS: Parts, Structures, & Systems of Organisms
blood: blood and lymphatics; erythrocyte: blood and lymphatics; liver: digestive system; plasma: blood and lymphatics; **white blood cell: blood and lymphatics, immune system**

INDEX TERMS: Diseases
hepatic cellular injury: digestive system disease, injury

INDEX TERMS: Diseases
liver injury: digestive system disease, injury

INDEX TERMS: Chemicals & Biochemicals
alanine aminotransferase [EC 2.6.1.2]; alkaline phosphatase [EC 3.1.3.1]; aspartate aminotransferase [EC 2.6.1.1]; glutathione peroxidase [EC 1.11.1.9]; halothane: general anesthetic-drug, hepatotoxin; hemoglobin; selenium: intraperitoneal administration; triglycerides; vitamin E [dl-alpha-tocopheryl acetate]: intraperitoneal administration

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Wistar rat (common)
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 9000-86-6 (alanine aminotransferase)
9000-86-6 (EC 2.6.1.2)
9001-78-9 (alkaline phosphatase)
9001-78-9 (EC 3.1.3.1)
9000-97-9 (aspartate aminotransferase)
9000-97-9 (EC 2.6.1.1)
9013-66-5 (glutathione peroxidase)
9013-66-5 (EC 1.11.1.9)
151-67-7 (halothane)
7782-49-2 (selenium)
1406-18-4 (vitamin E)
52225-20-4 (vitamin E)
1406-18-4 (dl-alpha-tocopheryl acetate)
52225-20-4 (dl-alpha-tocopheryl acetate)

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ACCESSION NUMBER: 2003:72984 BIOSIS Full-text
DOCUMENT NUMBER: PREV200300072984
TITLE: Oxidative stress in viral and alcoholic hepatitis.
AUTHOR(S): Loguercio, Carmela [Reprint Author]; Federico, Alessandro
CORPORATE SOURCE: Cattedra di Gastroenterologia, II Universita di Napoli, Via Pansini 5, 80131, Napoli, Italy
caloguer@tin.it
SOURCE: Free Radical Biology & Medicine, (**January 1 2003**)
Vol. 34, No. 1, pp. 1-10. print.
ISSN: 0891-5849 (ISSN print).
DOCUMENT TYPE: Article
General Review; (Literature Review)

LANGUAGE: English
ENTRY DATE: Entered STN: 29 Jan 2003
Last Updated on STN: 29 Jan 2003

ABSTRACT:Liver damage ranges from acute hepatitis to hepatocellular carcinoma, through apoptosis, necrosis, inflammation, immune response, fibrosis, ischemia, altered gene expression and regeneration, all processes that involve hepatocyte, Kupffer, stellate, and endothelial cells. Reactive oxygen and nitrogen species (ROS, RNS) play a crucial role in the induction and in the progression of liver disease, independently from its etiology. They are involved in the transcription and activation of a large series of cytokines and growth factors that, in turn, can contribute to further production of ROS and RNS. The main sources of free radicals are represented by hepatocyte mitochondria and cytochrome P450 enzymes, by endotoxin-activated macrophages (Kupffer cells), and by neutrophils. The consequent alteration of cellular redox state is potentiated by the correlated decrease of antioxidant and energetic reserves. Indices of free radical-mediated damage, such as the increase of malondialdehyde, 4-hydroxynonenal, protein-adducts, peroxynitrite, nitrotyrosine, etc., and/or decrease of **glutathione**, **vitamin** ***E*** , **vitamin C**, **selenium**, etc., have been documented in patients with viral or alcoholic liver disease. These markers may contribute to the monitoring the degree of liver damage, the response to antiviral therapies and to the design of new therapeutic strategies. In fact, increasing attention is now paid to a possible "redox gene therapy." By enhancing the antioxidant ability of hepatocytes, through transgene vectors, one could counteract oxidative/nitrosative stress and, in this way, contribute to blocking the progression of liver disease.

CONCEPT CODE:
Cytology - Animal 02506
Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Minerals 10069
Metabolism - General metabolism and metabolic pathways 13002
Digestive system - Physiology and biochemistry 14004
Digestive system - Pathology 14006
Cardiovascular system - Physiology and biochemistry 14504
Cardiovascular system - Blood vessel pathology 14508
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Nervous system - Physiology and biochemistry 20504
Toxicology - General and methods 22501
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Virology - General and methods 33502
Immunology - General and methods 34502
Medical and clinical microbiology - Virology 36006

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Digestive System (Ingestion and Assimilation); Infection; Metabolism

INDEX TERMS: Parts, Structures, & Systems of Organisms
Kupffer cells: digestive system, immune system; endothelial cells: circulatory system; **endotoxin-activated macrophages: blood and lymphatics, immune system**; hepatocytes: digestive system; immune response; liver: digestive system; stellate cells: nervous system

INDEX TERMS: Diseases
alcoholic hepatitis: digestive system disease, toxicity

Hepatitis, Alcoholic (MeSH)

INDEX TERMS: Diseases
hepatocellular carcinoma: digestive system disease, neoplastic disease
Carcinoma, Hepatocellular (MeSH); Liver Neoplasms (MeSH)

INDEX TERMS: Diseases
ischemia: vascular disease
Ischemia (MeSH)

INDEX TERMS: Diseases
liver damage: digestive system disease, injury

INDEX TERMS: Diseases
liver disease: digestive system disease
Liver Diseases (MeSH)

INDEX TERMS: Diseases
viral hepatitis: digestive system disease, viral disease
Hepatitis, Viral, Animal (MeSH); Hepatitis, Viral, Human (MeSH)

INDEX TERMS: Chemicals & Biochemicals
4-hydroxynonenal; antioxidants; cytochrome P450 enzymes; free radicals; glutathione; malondialdehyde; nitrotyrosine; peroxynitrite; protein-adducts; reactive nitrogen species; reactive oxygen species; selenium; vitamin C; vitamin E

INDEX TERMS: Miscellaneous Descriptors
apoptosis; cellular redox status; fibrosis; gene expression: alteration; inflammation; necrosis; nitrosative stress; oxidative stress; regeneration: alteration

ORGANISM: Classifier
Flaviviridae 03615
Super Taxa
Positive Sense ssRNA Viruses; Viruses; Microorganisms
Organism Name
Hepatitis C virus (species): pathogen
Taxa Notes
Microorganisms, Positive Sense Single-Stranded RNA Viruses, Viruses

ORGANISM: Classifier
Hepadnaviridae 03301
Super Taxa
DNA and RNA Reverse Transcribing Viruses; Viruses; Microorganisms
Organism Name
Hepatitis B virus (species): pathogen
Taxa Notes
DNA and RNA Reverse Transcribing Viruses, Microorganisms, Viruses

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM: Classifier
Negative Sense ssRNA Viruses 03500
Super Taxa
Viruses; Microorganisms

Organism Name
Hepatitis D virus (common) [Hepatitis delta virus (common)]: pathogen
Taxa Notes
Microorganisms, Negative Sense Single-Stranded RNA Viruses, Viruses

REGISTRY NUMBER: 75899-68-2 (4-hydroxynonenal)
70-18-8 (glutathione)
542-78-9 (malondialdehyde)
19059-14-4 (peroxynitrite)
7727-37-9 (reactive nitrogen species)
7782-44-7 (reactive oxygen species)
7782-49-2 (selenium)
50-81-7 (vitamin C)
1406-18-4 (vitamin E)

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ACCESSION NUMBER: 2001:226917 BIOSIS Full-text
DOCUMENT NUMBER: PREV200100226917
TITLE: Antioxidants and fatty acids in the amelioration of rheumatoid arthritis and related disorders.
AUTHOR(S): Darlington, L. Gail [Reprint author]; Stone, Trevor W.
CORPORATE SOURCE: Epsom General Hospital, Dorking Rd., Epsom, Surrey, KT18 7EG, UK
gdarlington@sthelier.sghms.ac.uk
SOURCE: British Journal of Nutrition, (**March, 2001**) Vol. 85, No. 3 Supplement 1, pp. 251-269. print.
CODEN: BJNUAV. ISSN: 0007-1145.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 May 2001
Last Updated on STN: 18 Feb 2002

ABSTRACT:The generation of reactive oxygen species (free radicals) is an important factor in the development and maintenance of rheumatoid arthritis in humans and animal models. One source of free radicals is nitric oxide produced within the synoviocytes and chondrocytes and giving rise to the highly toxic radical peroxynitrite. Several cytokines, including tumour necrosis factor-alpha (TNFalpha) are involved in the formation of free radicals, partly by increasing the activity of nitric oxide synthase. Indeed, nitric oxide may mediate some of the deleterious effects of cytokines on bone resorption. Aspirin, tetracyclines, steroids and methotrexate can suppress nitric oxide synthase. Dietary antioxidants include ascorbate and the tocopherols and beneficial effects of high doses have been reported especially in osteoarthritis. There is also evidence for beneficial effects of **beta -carotene** and **selenium**, the latter being a component of the antioxidant enzyme **glutathione** peroxidase. The polyunsaturated fatty acids (PUFA) include the n-3 compounds, some of which are precursors of eicosanoid synthesis, and the n-6 group which can increase formation of the pro-inflammatory cytokines TNFalpha and interleukin-6, and of reactive oxygen species. Some prostaglandins, however, suppress cytokine formation, so that n-3 PUFA often oppose the inflammatory effects of some n-6-PUFA. gamma-linolenic acid (GLA) is a precursor of prostaglandin E1, a fact which may account for its reported ability to ameliorate arthritic symptoms. Fish oil supplements, rich in n-3 PUFA such as eicosapentaenoic acid have been claimed as beneficial in rheumatoid arthritis, possibly by suppression of the immune system and its cytokine repertoire. Some other oils of marine origin (e.g. from the green-lipped mussel) and a range of vegetable oils (e.g. olive oil and evening primrose oil) have indirect anti-inflammatory actions, probably

mediated via prostaglandin E1. Overall, there is a growing scientific rationale for the use of dietary supplements as adjuncts in the treatment of inflammatory disorders such as rheumatoid arthritis and osteoarthritis.

CONCEPT CODE: Biochemistry studies - Vitamins 10063
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Lipids 10066
Enzymes - General and comparative studies: coenzymes 10802
Nutrition - General studies, nutritional status and methods 13202
Endocrine - General 17002
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Immunology - Immunopathology, tissue immunology 34508
Allergy 35500

INDEX TERMS: Major Concepts
Rheumatology (Human Medicine, Medical Sciences); Nutrition

INDEX TERMS: Diseases
rheumatoid arthritis: connective tissue disease, immune system disease, joint disease
Arthritis, Rheumatoid (MeSH)

INDEX TERMS: Chemicals & Biochemicals
ascorbate: antioxidant, nutrient; dietary antioxidants; eicosapentaenoic acid; fatty acids; fish oil supplements: antiarthritic activity; free radicals; glutathione peroxidase: antioxidant; prostaglandin E-1; reactive oxygen species; **tocopherols: antioxidant, nutrient**; tumor necrosis factor-alpha

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 299-36-5 (ascorbate)
10417-94-4Q (eicosapentaenoic acid)
25378-27-2Q (eicosapentaenoic acid)
32839-30-8Q (eicosapentaenoic acid)
9013-66-5 (glutathione peroxidase)
745-65-3 (prostaglandin E-1)

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ACCESSION NUMBER: 1999:478130 BIOSIS Full-text
DOCUMENT NUMBER: PREV199900478130
TITLE: Interferon/antioxidant combination therapy for chronic hepatitis C-A controlled pilot trial.
AUTHOR(S): Look, Markus P. [Reprint author]; Gerard, Alexandra; Rao, Govind S.; Sudhop, Thomas; Fischer, Hans-Peter; Sauerbruch, Tilman; Spengler, Ulrich
CORPORATE SOURCE: Department of General Internal Medicine, University of Bonn, Sigmund-Freud-Strasse 25, 53105, Bonn, Germany
SOURCE: Antiviral Research, (**Sept., 1999**) Vol. 43, No. 2, pp. 113-122. print.

CODEN: ARSRDR. ISSN: 0166-3542.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Nov 1999
Last Updated on STN: 9 Nov 1999
ABSTRACT:The effects of two forms of antioxidative co-therapy were analyzed in 24 interferon-alpha (IFN)-naive patients with chronic hepatitis C who were randomized to either receive IFN monotherapy (3 X 4.5 million units IFN-alpha 2a per week), (group A), or IFN and N-acetylcysteine (N-acetylcysteine (NAC) 1,800 mg/day) plus sodium selenite (400 mug/day) supplementation (group B), or treatment as in group B plus vitamin E (544 IU/day) (group C), over 24 weeks. Changes in histology, normalization of ALT, reduction of viral RNA, serum levels of **glutathione**, **selenium**, **vitamin** ***E*** , erythrocyte **glutathione** peroxidase, trolox equivalent antioxidative capacity (TEAC), thiobarbituric acid reactive substances (TBARS) and protein carbonyl groups were measured. Low baseline TEAC and elevated TBARS indicated increased oxidative stress before therapy, which was not affected by antioxidant supplementation. At the end of treatment complete responses were found in 3/8, 2/8 and 6/8 patients in groups A, B and C,respectively, but liver histology had not significantly improved. Vitamin E treated patients had a 2.4 greater chance (95% CI: 1.05-5.5) of obtaining a complete response and had significantly greater reduction in viral load (P = 0.028) than patients without vitamin E. Relapses, i.e. re-appearance of detectable hepatitis C virus (HCV) RNA and/or re-elevation of ALT-activity occurred in 7 out of the 11 responders within 6 months after termination of therapy (group A: 2/3, group B: 1/2 and group C: 4/6). Thus, no overall beneficial effect of antioxidant/IFN therapy was detected. However, the apparent trent towards a more favorable outcome with vitamin E supplementation warrants to further study this substance as an adjuvant to IFN therapy in chronic hepatitis C.
CONCEPT CODE: Chemotherapy - Antiviral agents 38506
Biochemistry studies - General 10060
Digestive system - General and methods 14001
Blood - General and methods 15001
Pharmacology - General 22002
Immunology - General and methods 34502
Medical and clinical microbiology - Virology 36006
INDEX TERMS: Major Concepts
Infection; Pharmacology
INDEX TERMS: Parts, Structures, & Systems of Organisms
erythrocyte: blood and lymphatics; serum: blood and lymphatics
INDEX TERMS: Diseases
hepatitis C: digestive system disease, viral disease
Hepatitis C (MeSH)
INDEX TERMS: Chemicals & Biochemicals
glutathione peroxidase; sodium selenite: antiviral-drug; thiobarbituric acid reactive substances [TBARS]; trolox; viral RNA; vitamin E: antioxidant; ALT [alanine aminotransferase]; IFN-alpha [interferon-alpha]: antiviral-drug; N-acetylcysteine: antiviral-drug
INDEX TERMS: Methods & Equipment
interferon/antioxidant combination therapy: pharmacological method, therapeutic method
INDEX TERMS: Miscellaneous Descriptors
oxidative stress
ORGANISM: Classifier
Flaviviridae 03615
Super Taxa
Positive Sense ssRNA Viruses; Viruses; Microorganisms

Organism Name
hepatitis C virus: pathogen
Taxa Notes
Microorganisms, Positive Sense Single-Stranded RNA Viruses, Viruses

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: host, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 9013-66-5 (glutathione peroxidase)
10102-18-8 (sodium selenite)
53188-07-1 (trolox)
1406-18-4 (vitamin E)
616-91-1 (N-acetylcysteine)
504-17-6 (THIOBARBITURIC ACID)
9000-86-6 (ALANINE AMINOTRANSFERASE)

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ACCESSION NUMBER: 1998:275313 BIOSIS Full-text
DOCUMENT NUMBER: PREV199800275313
TITLE: Comprehensive nutritional status in patients with long-standing Crohn disease currently in remission.
AUTHOR(S): Geerling, Bertine J. [Reprint author]; Badart-Smook, Anita; Stockbrugger, Reinhold W.; Brummer, Robert-Jan M.
CORPORATE SOURCE: University Hosp. Maastricht, Dep. Gastroenterol., P.O. Box 5800, 6202 AZ Maastricht, Netherlands
SOURCE: American Journal of Clinical Nutrition, (**May, 1998**) Vol. 67, No. 5, pp. 919-926. print.
CODEN: AJCNAC. ISSN: 0002-9165.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jun 1998
Last Updated on STN: 24 Jun 1998

ABSTRACT:Malnutrition is observed frequently and is an important complication in patients with Crohn disease (CD). The pathophysiology of malnutrition in this disorder is complex. To obtain a comprehensive picture of nutritional status in patients with long-standing CD that was clinically in remission, we assessed four measures of nutritional status in 32 patients (18 women and 14 men) and 32 matched healthy control subjects: 1) body composition, 2) dietary intake, 3) biochemical indexes of nutrition, and 4) and muscle strength (as a functional index). Mean daily intakes of fiber and phosphorus were significantly lower in CD patients than in control subjects. Serum concentrations of several nutrients (**beta-carotene**, ***vitamin*** **C**, **vitamin E**, **selenium**, and **zinc**) and activity of the enzyme **glutathione** peroxidase were also significantly lower in CD patients, as were antioxidant status and serum concentrations of magnesium and vitamin D. Percentage body fat and hamstring muscle strength were significantly lower in male CD patients than in control subjects, whereas muscle strength of the quadriceps was preserved. In conclusion, this study showed a variety of nutritional and functional deficiencies in patients with long-standing CD in remission, especially in male patients with a high lifetime prednisone dose. A comprehensive nutritional assessment seems superior to the assessment of a single dimension of nutritional status.

CONCEPT CODE: Nutrition - Malnutrition and obesity 13203
Physiology - General 12002
Nutrition - General studies, nutritional status and methods 13202
Digestive system - General and methods 14001
Muscle - General and methods 17501
Immunology - General and methods 34502

INDEX TERMS: Major Concepts
Dental and Oral System (Ingestion and Assimilation); Nutrition

INDEX TERMS: Diseases
malnutrition: nutritional disease
Nutrition Disorders (MeSH)

INDEX TERMS: Diseases
Crohn's disease: digestive system disease, immune system disease, remission
Crohn Disease (MeSH)

INDEX TERMS: Miscellaneous Descriptors
body composition; dietary intake; muscle strength; nutritional status

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: female, male, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

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ACCESSION NUMBER: 1998:434394 BIOSIS Full-text
DOCUMENT NUMBER: PREV199800434394
TITLE: The keys of oxidative stress in acquired immune deficiency syndrome apoptosis.
AUTHOR(S): Romero-Alvira, D. [Reprint author]; Roche, E.
CORPORATE SOURCE: Serv. Cardiol., Residencia Gen. Seguridad Social, Hosp. Miguel Servet, Zaragoza, Spain
SOURCE: Medical Hypotheses, (**Aug., 1998**) Vol. 51, No. 2, pp. 169-173. print.
CODEN: MEHYDY. ISSN: 0306-9877.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Oct 1998
Last Updated on STN: 7 Oct 1998

ABSTRACT:Apoptosis is the main cause of CD4+ T-lymphocyte depletion in acquired immune deficiency syndrome (AIDS). Various agents appear to be able to trigger apoptosis in CD4+ T cells, including viral proteins (i.e. gp120, Tat), inappropriate secretion of inflammatory cytokines by activated macrophages (i.e. tumor necrosis factor alpha) and toxins produced by opportunistic micro-organisms. Since oxidative stress can also induce apoptosis, it can be hypothesized that such a mechanism could participate in CD4+ T-cell apoptosis observed in AIDS. This correlates strongly with the observation that AIDS patients present low levels of antioxidants (i.e. superoxide dismutase-Mn, ***vitamin*** **E**, **selenium** and **glutathione**) most likely due to inappropriate nutrition (i.e. diets poor in antioxidants), alcohol and drug consumption, and digestive problems associated with the disease. Furthermore, the coadministration of the antiviral drug zidovudine with antioxidants increases its therapeutic potential. Finally, the following

additional observations support the hypothesis that oxidative stress is involved in cell apoptosis in AIDS: (1) The depletion of the anti-apoptotic/antioxidant protein Bcl-2 in human immunodeficiency virus (HIV)-infected CD4+ cells; (2) a decrease of apoptosis in HIV-infected cells treated with antioxidants and; (3) the presence of the pro-apoptotic/pro-oxidant cytokines secreted by activated macrophages in AIDS patients. Therefore, antiapoptotic/antioxidant strategies should be considered, alongside antiviral strategies, in order to design a more efficient therapy for AIDS in the near future.

CONCEPT CODE:
Immunology - Immunopathology, tissue immunology 34508
Cytology - Human 02508
Behavioral biology - Human behavior 07004
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Minerals 10069
Enzymes - Physiological studies 10808
Pathology - Therapy 12512
Blood - Blood cell studies 15004
Blood - Blood, lymphatic and reticuloendothelial pathologies 15006
Blood - Lymphatic tissue and reticuloendothelial system 15008
Pharmacology - Clinical pharmacology 22005
Chemotherapy - Antiviral agents 38506

INDEX TERMS:
Major Concepts
Clinical Immunology (Human Medicine, Medical Sciences); Infection

INDEX TERMS:
Parts, Structures, & Systems of Organisms
macrophage: blood and lymphatics, immune system ; CD4-positive T lymphocyte: blood and lymphatics, immune system, depletion

INDEX TERMS:
Diseases
acquired immunodeficiency syndrome: immune system disease, viral disease, AIDS
Acquired Immunodeficiency Syndrome (MeSH)

INDEX TERMS:
Chemicals & Biochemicals
glutathione: antioxidant; gp120 [glycoprotein 120]: viral protein; inflammatory cytokines: inappropriate secretion; manganese superoxide dismutase: antioxidant; selenium: antioxidant; tat: viral protein; tumor necrosis factor; vitamin E: antioxidant; zidovudine: antiviral-drug, reverse transcriptase inhibitor-drug, therapeutic efficacy

INDEX TERMS:
Miscellaneous Descriptors
alcohol consumption; apoptosis; drug consumption; medical hypothesis; oxidative stress

ORGANISM:
Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: host, patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM:
Classifier
Retroviridae 03305

Super Taxa
DNA and RNA Reverse Transcribing Viruses; Viruses; Microorganisms
Organism Name
human immunodeficiency virus [HIV]: pathogen
Taxa Notes
DNA and RNA Reverse Transcribing Viruses, Microorganisms, Viruses

REGISTRY NUMBER: 70-18-8 (glutathione)
7782-49-2 (selenium)
1406-18-4 (vitamin E)
30516-87-1 (zidovudine)
64-17-5 (ALCOHOL)
9054-89-1 (MANGANESE SUPEROXIDE DISMUTASE)

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ACCESSION NUMBER: 1998:71135 BIOSIS Full-text
DOCUMENT NUMBER: PREV199800071135
TITLE: Free radicals during HIV infection.
AUTHOR(S): Rabaud, C. [Reprint author]; Tronel, H.; Fremont, S.; May, T.; Canton, P.; Nicolas, J.-P.
CORPORATE SOURCE: Serv. Maladies Infect. Tropicales, CHU de Nancy, Hopitaux Brabois, 54511 Vandoeuvre-les-Nancy, France
SOURCE: Annales de Biologie Clinique, (**Nov.-Dec., 1997**)
Vol. 55, No. 6, pp. 565-571. print.
CODEN: ABCLAI. ISSN: 0003-3898.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: French
ENTRY DATE: Entered STN: 24 Feb 1998
Last Updated on STN: 24 Feb 1998

ABSTRACT:In HIV infected patients, the increase of the concentration of free radicals is related to: a depletion of protective system (**glutathione** peroxidase, superoxide dismutase, **vitamin E**, ***selenium.*** ..), and an increased production of free radicals (superoxide anion, hydrogen peroxide, hydroxil radical) consecutive to the activation of lymphocytes and phagocyting cells, the chronic inflammation, the increased polyinsatured fatty acids concentration and lipoperoxidation, and direct or indirect effect of several pathologic agents including Mycoplasma sp. This free radical excess could impair cell membranes and generate apoptosis, the main cause of lymphocytes CD4+ depletion. After a brief review of the free radicals synthesis pathway, their potential deleterious effects and the protective systems, the role of free radicals in the pathogenesis of HIV infection are discussed in regard to data reported in the literature.

CONCEPT CODE: Biochemistry studies - General 10060
Immunology - General and methods 34502
Medical and clinical microbiology - General and methods 36001
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Infection
INDEX TERMS: Parts, Structures, & Systems of Organisms
lymphocytes: blood and lymphatics, immune system, activation; phagocytic cells, activation;
CD4-positive lymphocyte: blood and lymphatics, immune system, depletion
INDEX TERMS: Diseases
HIV infection: viral disease, human immunodeficiency virus infection
HIV Infections (MeSH)

INDEX TERMS: Chemicals & Biochemicals
free radicals: synthesis pathway; glutathione peroxidase: protective system; hydrogen peroxide: free radical; hydroxyl radical: free radical; polyunsaturated fatty acids: increased concentration; selenium: protective system; superoxide anion: free radical; superoxide dismutase: protective system; vitamin E: protective system

INDEX TERMS: Miscellaneous Descriptors
apoptosis; chronic inflammation; lipoperoxidation

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human: patient
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM: Classifier
Mycoplasmataceae 07512
Super Taxa
Mycoplasmatales; Mycoplasmas; Eubacteria; Bacteria; Microorganisms
Organism Name
Mycoplasma-sp.: pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

ORGANISM: Classifier
Retroviridae 03305
Super Taxa
DNA and RNA Reverse Transcribing Viruses; Viruses; Microorganisms
Organism Name
HIV [human immunodeficiency virus]: pathogen
Taxa Notes
DNA and RNA Reverse Transcribing Viruses, Microorganisms, Viruses

REGISTRY NUMBER: 9013-66-5 (glutathione peroxidase)
7722-84-1 (hydrogen peroxide)
3352-57-6 (hydroxyl radical)
7782-49-2 (selenium)
11062-77-4 (superoxide anion)
9054-89-1 (superoxide dismutase)
1406-18-4 (vitamin E)

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ACCESSION NUMBER: 1998:262927 BIOSIS Full-text

DOCUMENT NUMBER: PREV199800262927

TITLE: Quality of the ryegrass and lettuce yields as affected by selenium fertilization.

AUTHOR(S): Hartikainen, Helina [Reprint author]; Ekholm, Paivi; Piironen, Vieno; Xue, Tailin; Koivu, Terhi; Yli-Halla, Markku

CORPORATE SOURCE: Dep. Appl. Chem. Microbiol., PO Box 27, FIN-00014 University of Helsinki, Finland

SOURCE: Agricultural and Food Science in Finland, (1997) Vol. 6, No. 5-6, pp. 381-387. print.
ISSN: 1239-0992.

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jun 1998
Last Updated on STN: 12 Aug 1998

ABSTRACT:The effect of Se-fertilization on the chemical composition and anti-oxidative properties of ryegrass and lettuce was studied in a pot experiment. The addition of Se enhanced its relative incorporation in soluble and insoluble proteins and diminished it in free amino acids. It also affected the anti-oxidative systems of the plants. The **glutathione** peroxidase (**GSH**-Px) activity found in both plant species increased with increasing **Se**-fertilization, whereas the superoxide dismutase (SOD) activity as well as the concentration of **vitamin E** decreased. This may indicate that the synthesis of SOD and vitamin E was reduced because the requirement of these anti-oxidants was diminished by antioxidative function of Se.

CONCEPT CODE: Plant physiology - Nutrition 51504
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Minerals 10069
Enzymes - Physiological studies 10808
Nutrition - General studies, nutritional status and methods 13202
Plant physiology - Enzymes 51518
Agronomy - Forage crops and fodder 52506
Soil science - Fertility and applied studies 52807
Horticulture - Vegetables 53008

INDEX TERMS: Major Concepts
Agrichemicals; Horticulture (Agriculture)

INDEX TERMS: Chemicals & Biochemicals
glutathione peroxidase; **selenium: fertilizer, nutrient**; superoxide dismutase; vitamin E

INDEX TERMS: Miscellaneous Descriptors
crop quality; yield

ORGANISM: Classifier
Compositae 25840
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
lettuce: crop
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGANISM: Classifier
Gramineae 25305
Super Taxa
Monocotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
ryegrass: crop
Taxa Notes
Angiosperms, Monocots, Plants, Spermatophytes, Vascular Plants

REGISTRY NUMBER: 9013-66-5 (glutathione peroxidase)
7782-49-2 (selenium)
9054-89-1 (superoxide dismutase)
1406-18-4 (vitamin E)

L453 ANSWER 42 OF 79 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1998:187501 BIOSIS Full-text
DOCUMENT NUMBER: PREV199800187501

TITLE: Effects of dietary **selenium** and **vitamin E** concentrations on phospholipid hydroperoxide **glutathione** peroxidase expression in reproductive tissues of pubertal maturing male rats.

AUTHOR(S): Lei, Xin Gen [Reprint author]; Ross, Deborah A.; Parks, John E.; Combs, Gerald F., Jr.

CORPORATE SOURCE: Dep. Anim. Sci., Div. Nutr. Sci., Cornell Univ., Ithaca, NY 14853, USA

SOURCE: Biological Trace Element Research, **(Winter, 1997)** Vol. 59, No. 1-3, pp. 195-205. print.
CODEN: BTERDG. ISSN: 0163-4984.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 20 Apr 1998
Last Updated on STN: 20 Apr 1998

ABSTRACT: Phospholipid hydroperoxide glutathione peroxidase (PHGPX) is the second intracellular selenium (Se)-dependent glutathione peroxidase (GSH-Px) identified in mammals. Our objectives were to determine the effect of dietary vitamin E and Se levels on PHGPX activity expression in testis, epididymis, and seminal vesicles of pubertal maturing rats, and the relationship of PHGPX expression with testicular development and sperm quality. Forty Sprague-Dawley male weanling rats (21-d old), were initially fed for 3 wk a torula yeast basal diet (containing 0.05 mg Se/kg) supplemented with marginal levels of Se (0.1 mg/kg as Na2SeO3) and vitamin E (25 IU/kg as all-rac-alpha-tocopheryl acetate). Then, rats were fed the basal diets supplemented with 0 or 0.2 mg Se/kg and 0 or 100 IU vitamin E/kg diet during the 3-wk period of pubertal maturing. Compared with the Se-supplemented rats, those fed the Se-deficient diets retained 31, 88, 67, and 50% of Se-dependent GSH-Px activities in liver, testis, epididymis, and seminal vesicles, respectively. Testes and seminal vesicles had substantially higher (5- to 20-fold) PHGPX activity than liver. Dietary Se deficiency did not affect PHGPX activities in the reproductive tissues, but reduced PHGPX activity in liver by 28% ($P < 0.0001$). Dietary vitamin E supplementation did not affect PHGPX activity in liver, whereas it raised PHGPX activity in seminal vesicles by 43% ($P < 0.005$). Neither dietary vitamin E nor Se levels affected body weight gains, reproductive organ weights, or sperm counts and morphology. In conclusion, expression of PHGPX activity in testis and seminal vesicles was high and regulated by dietary Se and vitamin E differently from that in liver.

CONCEPT CODE: Reproductive system - Physiology and biochemistry 16504
Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Sterols and steroids 10067
Biochemistry studies - Minerals 10069
Enzymes - Physiological studies 10808
Nutrition - General studies, nutritional status and methods 13202
Development and Embryology - Morphogenesis 25508

INDEX TERMS: Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Nutrition; Reproductive System (Reproduction)

INDEX TERMS: Parts, Structures, & Systems of Organisms
epididymis: reproductive system; seminal vesicle: reproductive system; testis: reproductive system

INDEX TERMS: Chemicals & Biochemicals
phospholipid hydroperoxide glutathione peroxidase; **selenium: nutrient; vitamin E: nutrient**

INDEX TERMS: Miscellaneous Descriptors
development

ORGANISM: Classifier

Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat: male, young
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: 97089-70-8 (phospholipid hydroperoxide glutathione peroxidase)
7782-49-2 (selenium)
1406-18-4 (vitamin E)

L453 ANSWER 43 OF 79 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:434948 BIOSIS Full-text
DOCUMENT NUMBER: PREV199799734151
TITLE: Oxidative stress in cyclosporin and azathioprine treated renal transplant patients.
AUTHOR(S): McGrath, Lawrence T. [Reprint author]; Treacy, Rita; McClean, Elizabeth; Brown, J. Henry
CORPORATE SOURCE: Dep. Therapeutics and Pharmacol., Sch. Clin. Med., Queen's Univ. Belfast, Belfast BT9 7BL, UK
SOURCE: Clinica Chimica Acta, (**1997**) Vol. 264, No. 1, pp. 1-12.
CODEN: CCATAR. ISSN: 0009-8981.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Oct 1997
Last Updated on STN: 8 Oct 1997
ABSTRACT:The major cause of death following transplantation is cardiovascular disease. Among the many processes involved in atherogenesis, oxidative stress and modification of low density lipoprotein has been assigned a major role. This in turn may be affected by the immunosuppressive regime used. We studied oxidative stress in 40 renal transplant patients receiving two different immunosuppressive regimens (20 on cyclosporin, 20 on azathioprine/prednisolone), and 19 normal controls. Changes in lipid peroxidation (assessed as thiobarbituric acid reacting substances, TBARS), antioxidant enzyme activities (glutathione reductase GSHPx, **glutathione** peroxidase GSHPx and superoxide dismutase SOD) **vitamin E** and antioxidant associated trace metals (**selenium**, copper, ***zinc***) were studied. Alteration of erythrocyte membrane fluidity was examined using the fluorescent probe 1,6 diphenyl-1,3,5-hexatriene (DPH). Both transplant groups showed no difference in TBARS, lipid standardised vitamin E, copper or selenium compared to controls. Zinc was significantly increased in both the cyclosporin and azathioprine groups compared to controls (P lt 0.05). SOD was reduced in both transplant groups compared to controls (P lt 0.001). GSHPx was elevated in both groups compared to controls but only reached significance in the azathioprine treated group (P lt 0.005). GSHRx was slightly elevated in both transplant groups but did not reach significance. Erythrocyte membrane anisotropy was decreased in the cyclosporin treated group (P lt 0.05). There was no difference in the azathioprine group compared to controls. The present results suggest an adaptive response to increased oxidative stress in both transplant groups sufficient to minimise markers of oxidative stress (TBARS and anisotropy). The results also suggest no significant difference between the two immunosuppressive regimes with regard to oxidative stress.
CONCEPT CODE: Biochemistry studies - General 10060
Enzymes - General and comparative studies: coenzymes 10802

Anatomy and Histology - Regeneration and transplantation 11107
Metabolism - General metabolism and metabolic pathways 13002
Cardiovascular system - General and methods 14501
Blood - General and methods 15001
Pharmacology - General 22002
Immunology - General and methods 34502

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Cardiovascular System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics); **Immune System (Chemical Coordination and Homeostasis)**; Metabolism; Pharmacology; Physiology

INDEX TERMS: Chemicals & Biochemicals
CYCLOSPORIN; AZATHIOPRINE; PREDNISONE; ZINC

INDEX TERMS: Miscellaneous Descriptors
ANTIOXIDANT ENZYMES; ATHEROGENESIS; AZATHIOPRINE; BIOCHEMISTRY AND BIOPHYSICS; CARDIOVASCULAR DISEASE; CARDIOVASCULAR MEDICINE; CYCLOSPORIN; ERYTHROCYTE MEMBRANE FLUIDITY; HEART DISEASE; IMMUNOSUPPRESSANT-DRUG; LIPID PEROXIDATION; LOW-DENSITY LIPOPROTEIN; OXIDATIVE STRESS; PATIENT; PHARMACOLOGY; PREDNISONE; RENAL TRANSPLANTATION; SURGICAL METHOD; VASCULAR DISEASE; ZINC

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 59865-13-3Q (CYCLOSPORIN)
79217-60-0Q (CYCLOSPORIN)
446-86-6 (AZATHIOPRINE)
53-03-2 (PREDNISONE)
7440-66-6 (ZINC)

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ACCESSION NUMBER: 1995:439647 BIOSIS Full-text
DOCUMENT NUMBER: PREV199598453947
TITLE: The role of oxidative stress in HIV disease.
AUTHOR(S): Pace, Gary W.; Leaf, Cynthia D. [Reprint author]
CORPORATE SOURCE: Free Radical Sci. Inc., 640 Memorial Drive, Cambridge, MA 02139, USA
SOURCE: Free Radical Biology and Medicine, (1995) Vol. 19, No. 4, pp. 523-528.
CODEN: FRBMEH. ISSN: 0891-5849.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Oct 1995
Last Updated on STN: 10 Oct 1995

ABSTRACT:Evidence has accumulated suggesting that HIV-infected patients are under chronic oxidative stress. Perturbations to the antioxidant defense system, including changes in levels of **ascorbic acid**, tocopherols, carotenoids, **selenium**, superoxide dismutase, and ***glutathione*** , have been observed in various tissues of these patients.

Elevated serum levels of hydroperoxides and malondialdehyde also have been noted and are indicative of oxidative stress during HIV infection. Indications of oxidative stress are observed in asymptomatic HIV-infected patients early in the course of the disease. Oxidative stress may contribute to several aspects of HIV disease pathogenesis, including viral replication, inflammatory response, decreased immune cell proliferation, loss of immune function, apoptosis, chronic weight loss, and increased sensitivity to drug toxicities. Glutathione may play a role in these processes, and thus, agents that replete glutathione may offer a promising treatment for HIV-infected patients. Clinical studies are underway to evaluate the efficacy of the glutathione-repleting agents, L-2-oxothiazolidine-4-carboxylic acid (OTC) and N-acetylcysteine (NAC), in HIV-infected patients.

CONCEPT CODE: Biochemistry - Gases 10012
Biochemistry studies - Proteins, peptides and amino acids 10064
Physiology - Stress 12008
Virology - Animal host viruses 33506
Immunology - Bacterial, viral and fungal 34504
Immunology - Immunopathology, tissue immunology 34508
Medical and clinical microbiology - Virology 36006

INDEX TERMS: Major Concepts
Clinical Endocrinology (Human Medicine, Medical Sciences); **Immune System (Chemical Coordination and Homeostasis)**; Infection

INDEX TERMS: Chemicals & Biochemicals
GLUTATHIONE

INDEX TERMS: Miscellaneous Descriptors
ACQUIRED IMMUNODEFICIENCY SYNDROME; FREE RADICALS; GLUTATHIONE

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM: Classifier
Retroviridae 03305
Super Taxa
DNA and RNA Reverse Transcribing Viruses; Viruses; Microorganisms
Organism Name
human immunodeficiency virus
Taxa Notes
DNA and RNA Reverse Transcribing Viruses, Microorganisms, Viruses

REGISTRY NUMBER: 70-18-8 (GLUTATHIONE)

L453 ANSWER 45 OF 79 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1988:339546 BIOSIS Full-text
DOCUMENT NUMBER: PREV198835034388; BR35:34388
TITLE: LIPOPEROXIDATION EXTENT **VITAMIN E** CONTENT AND **SELENIUM** DEPENDENT **GLUTATHIONE** PEROXIDASE ACTIVITY IN PLASMA AND ERYTHROCYTES OF PATIENTS WITH RHEUMATIC HEART DISEASE.
AUTHOR(S): ZHOU M [Reprint author]; CHEN Y; LIU Y L; QI F J; KONG H
CORPORATE SOURCE: DEP BIOCHEM, FIRST MED COLL PLA, GUANGZHOU, GUANGDONG,

PEOPLES REPUBLIC OF CHINA
SOURCE: Medical Science Research, (1988) Vol. 16, No. 8, pp. 429-430.
CODEN: MSCREJ. ISSN: 0269-8951.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Jul 1988
Last Updated on STN: 26 Jul 1988
CONCEPT CODE: Biochemistry studies - Vitamins 10063
Biochemistry studies - Lipids 10066
Enzymes - Physiological studies 10808
Pathology - Inflammation and inflammatory disease 12508
Metabolism - Lipids 13006
Cardiovascular system - Physiology and biochemistry 14504
Cardiovascular system - Heart pathology 14506
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Immunology - General and methods 34502
Medical and clinical microbiology - Bacteriology 36002
INDEX TERMS: Major Concepts
Blood and Lymphatics (Transport and Circulation); Cardiovascular Medicine (Human Medicine, Medical Sciences); Cardiovascular System (Transport and Circulation); Enzymology (Biochemistry and Molecular Biophysics); **Immune System (Chemical Coordination and Homeostasis)**; Infection; Metabolism
INDEX TERMS: Miscellaneous Descriptors
HEMOLYSIS PLASMA LIPID PEROXIDE FREE RADICALS
ORGANISM: Classifier
Gram-Positive Cocci 07700
Super Taxa
Eubacteria; Bacteria; Microorganisms
Taxa Notes
Bacteria, Eubacteria, Microorganisms
ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
REGISTRY NUMBER: 1406-18-4 (VITAMIN E)
7782-49-2 (SELENIUM)
9013-66-5 (GLUTATHIONE PEROXIDASE)
14915-07-2 (PEROXIDE)

L453 ANSWER 46 OF 79 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1986:444876 BIOSIS Full-text
DOCUMENT NUMBER: PREV198631101286; BR31:101286
TITLE: ANTIOXIDANTS AND THE IMMUNE RESPONSE.
AUTHOR(S): BALL S S [Reprint author]; WEINDRUCH R; WALFORD R L
CORPORATE SOURCE: DEP PATHOL, DIV GERONTOL, UCLA MED CENT, LOS ANGELES, CALIF 90024, USA
SOURCE: Mod. Aging Res., (1986) pp. 427-456. JOHNSON, J. E. JR., ET AL. (ED.). MODERN AGING RESEARCH, VOL. 8. FREE RADICALS, AGING, AND DEGENERATIVE DISEASES. XVI+588P. ALAN R. LISS, INC.: NEW YORK, N.Y., USA. ILLUS.
Publisher: Series: Modern Aging Research.

CODEN: MARDDR. ISSN: 0275-360X. ISBN: 0-8451-2308-4.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 8 Nov 1986
Last Updated on STN: 8 Nov 1986
CONCEPT CODE: Cytology - Animal 02506
Biochemistry studies - General 10060
Biochemistry studies - Vitamins 10063
Biochemistry studies - Minerals 10069
Pharmacology - Immunological processes and allergy 22018
Immunology - Immunopathology, tissue immunology 34508
INDEX TERMS: Major Concepts
Immune System (Chemical Coordination and Homeostasis); Pharmacology
INDEX TERMS: Miscellaneous Descriptors
REVIEW **VITAMIN E SELENIUM**
ASCORBATE RETINOIDS **UBIQUINONE** PHENOLS THIOLS
2 MERCAPTOETHANOL IMMUNOSUPPRESSION FREE RADICALS
REGISTRY NUMBER: 1406-18-4 (VITAMIN E)
7782-49-2 (SELENIUM)
299-36-5 (ASCORBATE)
108-95-2D (PHENOLS)
60-24-2 (2-MERCAPTOETHANOL)
50-81-7 (ASCORBATE)

L453 ANSWER 47 OF 79 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1982:167789 BIOSIS Full-text
DOCUMENT NUMBER: PREV198273027773; BA73:27773
TITLE: INFLUENCES OF DIETARY VITAMIN E AND SELENIUM ON THE OXIDANT DEFENSE SYSTEM OF THE CHICK.
AUTHOR(S): COMBS G F JR [Reprint author]
CORPORATE SOURCE: DEP POULT AVIAN SCI, CORNELL UNIV, ITHACA, NY 14853, USA
SOURCE: Poultry Science, (**1981**) Vol. 60, No. 9, pp. 2098-2105.
CODEN: POSCAL. ISSN: 0032-5791.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ABSTRACT:The effects of dietary **vitamin E** and **Se** on the oxidant defense system (**glutathione** peroxidase, catalase, ***glutathione*** reductase, **reduced glutathione** and superoxide dismutase) were investigated in the chick. Two-week-old chicks were reared using a vitamin E-free, low-Se, semipurified basal diet alone or supplemented with vitamin E (100 IU/kg) and/or Se (.10 ppm). Vitamin E sustained chick growth, survival and protection from exudative diathesis (ED) but did not significantly affect the enzymatic components of the oxidant defense system. Dietary **Se** promoted chick growth and protection against ED in the absence of **vitamin E** and sustained ***glutathione*** peroxidase activity in several tissues. The latter effect was associated with decreases in reduced glutathione concentrations observed in liver and blood. Catalase and superoxide dismutase activities were increased in liver and brain in Se deficiency. Glutathione reductase activities in liver, kidney, lung and brain were not affected by diet.
CONCEPT CODE: Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Enzymes - Physiological studies 10808
Metabolism - Minerals 13010

Metabolism - Proteins, peptides and amino acids 13012
Metabolism - Fat-soluble vitamins 13016
Nutrition - Malnutrition and obesity 13203
Nutrition - Minerals 13206
Nutrition - Fat-soluble vitamins 13208
Nutrition - General dietary studies 13214
Digestive system - Physiology and biochemistry 14004
Blood - Blood and lymph studies 15002
Urinary system - Physiology and biochemistry 15504
Respiratory system - Physiology and biochemistry 16004
Nervous system - Physiology and biochemistry 20504
Poultry production - Feeds and feeding 27004
Immunology - General and methods 34502

INDEX TERMS: Major Concepts
Animal Husbandry (Agriculture); Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Nutrition

INDEX TERMS: Miscellaneous Descriptors
DEFICIENCY LUNG GLUTATHIONE PEROXIDASE CATALASE GLUTATHIONE REDUCTASE SUPER OXIDE DIS MUTASE EXUDATIVE DIATHESIS LIVER BLOOD BRAIN KIDNEY

ORGANISM: Classifier
Galliformes 85536
Super Taxa
Aves; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates

REGISTRY NUMBER: 1406-18-4 (VITAMIN E)
7782-49-2 (SELENIUM)
9013-66-5 (GLUTATHIONE PEROXIDASE)
9001-05-2 (CATALASE)
9001-48-3 (GLUTATHIONE REDUCTASE)
9054-89-1 (SUPEROXIDE DISMUTASE)

L453 ANSWER 48 OF 79 EMBASE

ACCESSION NUMBER: 2003388574 EMBASE Full-text
TITLE: A dietary supplement abolishes age-related cognitive decline in transgenic mice expressing elevated free radical processes.
AUTHOR: Lemon J.A.; Boreham D.R.; Rollo C.D.
CORPORATE SOURCE: C.D. Rollo, Department of Biology, McMaster University, 1280 Main St., W., Hamilton, Ont. L8S 4K1, Canada. rollocd@mcmaster.ca
SOURCE: Experimental Biology and Medicine, (2003) Vol. 228, No. 7, pp. 800-810. .
Refs: 98
ISSN: 1535-3702 CODEN: EBMMBE
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 020 Gerontology and Geriatrics
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 16 Oct 2003
Last Updated on STN: 16 Oct 2003

ABSTRACT: We previously found that transgenic mice overexpressing growth hormone (TGM) have elevated and progressively increasing free radical processes in brain that strongly correlates with reduced survivorship. Young mature TGM, however, displayed vastly enhanced learning of an eight-choice cued maze and qualitatively different learning curves than normal controls. Here we document the age-related patterns in learning ability of TGM and normal mice. Learning appeared inferior in both genotypes of very young mice but TGM were confirmed to be superior to normal mice upon maturity. Older TGM, however, showed rapid age-related loss of their exceptional learning, whereas normal mice at 1 year of age showed little change. The cognitive decline of TGM was abolished by a complex "anti-aging" dietary supplement formulated to promote membrane and mitochondrial integrity, increase insulin sensitivity, reduce reactive oxygen and nitrogen species, and ameliorate inflammation. Results are discussed in the context of reactive oxygen and nitrogen species, long-term potentiation, learning, aging and neuropathology, based on known impacts of the growth hormone axis on the brain, and characteristics of TGM.

CONTROLLED TERM: Medical Descriptors:
*diet supplementation
*cognitive defect
*aging
transgenic mouse
correlation analysis
learning
genotype
maturation
mitochondrial membrane
insulin sensitivity
inflammation
long term potentiation
neuropathology
hormone action
drug formulation
drug design
oxidative stress
nonhuman
mouse
animal experiment
controlled study
article

CONTROLLED TERM: Drug Descriptors:
*growth hormone
*antioxidant: DV, drug development
*antioxidant: PR, pharmaceutics
*antioxidant: PD, pharmacology
*antioxidant: PO, oral drug administration
*free radical: EC, endogenous compound
thiamine: DV, drug development
thiamine: PR, pharmaceutics
thiamine: PD, pharmacology
thiamine: PO, oral drug administration
nicotinamide: DV, drug development
nicotinamide: PR, pharmaceutics
nicotinamide: PD, pharmacology
nicotinamide: PO, oral drug administration
pyridoxine: DV, drug development
pyridoxine: PR, pharmaceutics
pyridoxine: PD, pharmacology
pyridoxine: PO, oral drug administration
ascorbic acid: DV, drug development

ascorbic acid: PR, pharmaceutics
ascorbic acid: PD, pharmacology
ascorbic acid: PO, oral drug administration
cyanocobalamin: DV, drug development
cyanocobalamin: PR, pharmaceutics
cyanocobalamin: PD, pharmacology
cyanocobalamin: PO, oral drug administration
vitamin D: DV, drug development
vitamin D: PR, pharmaceutics
vitamin D: PD, pharmacology
vitamin D: PO, oral drug administration
alpha tocopherol: DV, drug development
alpha tocopherol: PR, pharmaceutics
alpha tocopherol: PD, pharmacology
alpha tocopherol: PO, oral drug administration
levacecarnine: DV, drug development
levacecarnine: PR, pharmaceutics
levacecarnine: PD, pharmacology
levacecarnine: PO, oral drug administration
thioctic acid: DV, drug development
thioctic acid: PR, pharmaceutics
thioctic acid: PD, pharmacology
thioctic acid: PO, oral drug administration
beta carotene: DV, drug development
beta carotene: PR, pharmaceutics
beta carotene: PD, pharmacology
beta carotene: PO, oral drug administration
bioflavonoid: DV, drug development
bioflavonoid: PR, pharmaceutics
bioflavonoid: PD, pharmacology
bioflavonoid: PO, oral drug administration
chromium picolinate: DV, drug development
chromium picolinate: PR, pharmaceutics
chromium picolinate: PD, pharmacology
chromium picolinate: PO, oral drug administration
cod liver oil: DV, drug development
cod liver oil: PR, pharmaceutics
cod liver oil: PD, pharmacology
cod liver oil: PO, oral drug administration
ubidecarenone: DV, drug development
ubidecarenone: PR, pharmaceutics
ubidecarenone: PD, pharmacology
ubidecarenone: PO, oral drug administration
prasterone: DV, drug development
prasterone: PR, pharmaceutics
prasterone: PD, pharmacology
prasterone: PO, oral drug administration
linseed oil: DV, drug development
linseed oil: PR, pharmaceutics
linseed oil: PD, pharmacology
linseed oil: PO, oral drug administration
folic acid: DV, drug development
folic acid: PR, pharmaceutics
folic acid: PD, pharmacology
folic acid: PO, oral drug administration
garlic extract: DV, drug development
garlic extract: PR, pharmaceutics
garlic extract: PD, pharmacology
garlic extract: PO, oral drug administration
ginger extract: DV, drug development

ginger extract: PR, pharmaceutics
ginger extract: PD, pharmacology
ginger extract: PO, oral drug administration
Ginkgo biloba extract: DV, drug development
Ginkgo biloba extract: PR, pharmaceutics
Ginkgo biloba extract: PD, pharmacology
Ginkgo biloba extract: PO, oral drug administration
ginseng extract: DV, drug development
ginseng extract: PR, pharmaceutics
ginseng extract: PD, pharmacology
ginseng extract: PO, oral drug administration
green tea extract: DV, drug development
green tea extract: PR, pharmaceutics
green tea extract: PD, pharmacology
green tea extract: PO, oral drug administration
glutathione: DV, drug development
glutathione: PR, pharmaceutics
glutathione: PD, pharmacology
glutathione: PO, oral drug administration
magnesium: DV, drug development
magnesium: PR, pharmaceutics
magnesium: PD, pharmacology
magnesium: PO, oral drug administration
melatonin: DV, drug development
melatonin: PR, pharmaceutics
melatonin: PD, pharmacology
melatonin: PO, oral drug administration
acetylcysteine: DV, drug development
acetylcysteine: PR, pharmaceutics
acetylcysteine: PD, pharmacology
acetylcysteine: PO, oral drug administration
unindexed drug

CAS REGISTRY NO.: (growth hormone) 36992-73-1, 37267-05-3, 66419-50-9, 9002-72-6; (thiamine) 59-43-8, 67-03-8; (nicotinamide) 11032-50-1, 98-92-0; (pyridoxine) 12001-77-3, 58-56-0, 65-23-6, 8059-24-3; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (cyanocobalamin) 53570-76-6, 68-19-9, 8064-09-3; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (levacecarnine) **3040-38-8**, 5080-50-2; (thioctic acid) 1077-29-8, **1200-22-2**, 2319-84-8, 62-46-4; (beta carotene) 7235-40-7; (chromium picolinate) 14639-25-9; (cod liver oil) 8001-69-2; (ubidecarenone) 303-98-0; (prasterone) 53-43-0; (linseed oil) 8001-26-1; (folic acid) 59-30-3, 6484-89-5; (glutathione) 70-18-8; (magnesium) 7439-95-4; (melatonin) 73-31-4; (acetylcysteine) **616-91-1**

L453 ANSWER 49 OF 79 EMBASE

ACCESSION NUMBER: 2004294862 EMBASE Full-text
TITLE: Nutrition and head and neck cancer.
AUTHOR: Snyderman C.H.
CORPORATE SOURCE: Dr. C.H. Snyderman, Dept. Otolaryngol.-Head/Neck Surgery, University of Pittsburgh, 200 Lothrop Street, Pittsburgh, PA 15213, United States. csnyd@pitt.edu
SOURCE: Current Oncology Reports, (2003) Vol. 5, No. 2, pp. 158-163. .
Refs: 37
ISSN: 1523-3790
COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Jul 2004
Last Updated on STN: 29 Jul 2004

ABSTRACT: The role of nutrition in patients with head and neck cancer, specifically squamous cell carcinoma, is underappreciated. The composition of the diet can contribute to carcinogenesis, and specific nutrients may offer some protection in the presence of known carcinogens (ie, tobacco). Patients with head and neck cancer are frequently malnourished, which may have prognostic implications for the morbidity and outcome of therapies. Although the benefits of preoperative nutritional supplementation have been demonstrated only in severely malnourished patients, the use of immune-enhancing formulas may prove to be beneficial. Special consideration should be given to the nutritional needs and possible interactions of diet and therapy in patients receiving radiation and chemotherapy. Physicians should be cognizant of the widespread use of alternative diets and nutritional supplements that can be harmful and may interact with standard treatments. New knowledge regarding the role of nutrition in cancer offers hope for the nutritional chemoprevention of head and neck cancers.

CONTROLLED TERM: Medical Descriptors:
*head and neck cancer: DT, drug therapy
*head and neck cancer: ET, etiology
*head and neck cancer: PC, prevention
*head and neck cancer: RT, radiotherapy
*head and neck cancer: SU, surgery
*head and neck cancer: TH, therapy
*squamous cell carcinoma: DT, drug therapy
*squamous cell carcinoma: ET, etiology
*squamous cell carcinoma: PC, prevention
*squamous cell carcinoma: RT, radiotherapy
*squamous cell carcinoma: SU, surgery
*squamous cell carcinoma: TH, therapy
*malnutrition: ET, etiology
food composition
dietary intake
diet supplementation
nutritional parameters
diet therapy
disease association
cigarette smoking
oxidative stress
alcohol consumption
cachexia
tomato
cancer incidence
risk factor
cancer risk
eating habit
correlation analysis
nutritional support
mucosa inflammation: DT, drug therapy
mucosa inflammation: SI, side effect

gastrointestinal symptom: DT, drug therapy
gastrointestinal symptom: SI, side effect
cardiotoxicity: DT, drug therapy
cardiotoxicity: SI, side effect
nephrotoxicity: DT, drug therapy
nephrotoxicity: SI, side effect
lung fibrosis: DT, drug therapy
lung fibrosis: SI, side effect
human
review
Drug Descriptors:
lycopene
arginine: PD, pharmacology
glutamine: DT, drug therapy
glutamine: PD, pharmacology
omega 3 fatty acid: PD, pharmacology
icosapentaenoic acid: PD, pharmacology
docosahexaenoic acid: PD, pharmacology
antineoplastic agent: AE, adverse drug reaction
antineoplastic agent: CB, drug combination
antineoplastic agent: IT, drug interaction
antineoplastic agent: DT, drug therapy
antioxidant: CB, drug combination
antioxidant: IT, drug interaction
antioxidant: PD, pharmacology
bleomycin: AE, adverse drug reaction
bleomycin: IT, drug interaction
bleomycin: DT, drug therapy
cisplatin: AE, adverse drug reaction
cisplatin: CB, drug combination
cisplatin: IT, drug interaction
cisplatin: DT, drug therapy
doxorubicin: AE, adverse drug reaction
doxorubicin: IT, drug interaction
doxorubicin: DT, drug therapy
alpha tocopherol: DT, drug therapy
alpha tocopherol: PD, pharmacology
ascorbic acid: DT, drug therapy
ascorbic acid: PD, pharmacology
ubidecarenone: DT, drug therapy
ubidecarenone: PD, pharmacology
beta carotene: DT, drug therapy
beta carotene: PD, pharmacology
glutathione: DT, drug therapy
glutathione: PD, pharmacology
acetylcysteine: DT, drug therapy
acetylcysteine: PD, pharmacology
selenium: DT, drug therapy
selenium: PD, pharmacology
genistein: DT, drug therapy
genistein: PD, pharmacology
daidzein: DT, drug therapy
daidzein: PD, pharmacology
quercetin: DT, drug therapy
quercetin: PD, pharmacology
retinol: PD, pharmacology
pyridoxine: PD, pharmacology
zinc: PD, pharmacology
bioflavonoid: PD, pharmacology
superoxide dismutase: PD, pharmacology

etoposide: IT, drug interaction
etoposide: DT, drug therapy
fish oil: CB, drug combination
fish oil: IT, drug interaction
fish oil: DT, drug therapy
fish oil: PD, pharmacology
folic acid: PD, pharmacology
unindexed drug

CAS REGISTRY NO.: (lycopene) 502-65-8; (arginine) 1119-34-2, 15595-35-4, 7004-12-8, 74-79-3; (glutamine) 56-85-9, 6899-04-3; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (bleomycin) 11056-06-7; (cisplatin) 15663-27-1, 26035-31-4, 96081-74-2; (doxorubicin) 23214-92-8, 25316-40-9; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (ubidecarenone) 303-98-0; (beta carotene) 7235-40-7; (glutathione) 70-18-8; (acetylcysteine) 616-91-1; (selenium) 7782-49-2; (genistein) 446-72-0; (daidzein) 486-66-8; (quercetin) 117-39-5; (retinol) 68-26-8, 82445-97-4; (pyridoxine) 12001-77-3, 58-56-0, 65-23-6, 8059-24-3; (zinc) 7440-66-6; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1; (etoposide) 33419-42-0; (fish oil) 8016-13-5; (folic acid) 59-30-3, 6484-89-5

ACCESSION NUMBER: 2003243875 EMBASE Full-text
TITLE: Interplay between high energy impulse noise (blast) and antioxidants in the lung.
AUTHOR: Elsayed N.M.; Gorbunov N.V.
CORPORATE SOURCE: N.M. Elsayed, Hurley Consulting Associates, One Main Street, Chatham, NJ 07928, United States. nelsayed@hurleyconsulting.com
SOURCE: Toxicology, (15 Jul 2003) Vol. 189, No. 1-2, pp. 63-74. .
Refs: 66
ISSN: 0300-483X CODEN: TXCYAC
COUNTRY: Ireland
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
011 Otorhinolaryngology
015 Chest Diseases, Thoracic Surgery and Tuberculosis
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 3 Jul 2003
Last Updated on STN: 3 Jul 2003

ABSTRACT: High-energy impulse noise (BLAST) is a physical event characterized by an abrupt rise in atmospheric pressure above ambient lasting for a very short period, but potentially causing significant material and biological damage. Exposure to high-level BLAST can be destructive and lethal. Low-level BLAST similar to what is encountered repeatedly by military personnel during training and combat from detonation of munitions and firing of large caliber weapons, and during occupational use of explosives and some heavy machinery, can also cause significant injury. Globally, civilians are increasingly exposed to BLAST resulting from terrorist bombings or abandoned unmarked mines following numerous wars and conflicts. We have shown previously in several animal models that exposure to non-lethal BLAST results in pathological changes, mostly to the hollow organs characterized in the lungs, the most

sensitive organ, by rupture of alveolar septa, and pulmonary hemorrhage and edema. These events potentially can cause alveolar flooding, respiratory insufficiency and adult respiratory distress syndrome (ARDS), leading to varying degrees of hypoxia, antioxidant depletion and oxidative damage. We have also observed progressive formation of nitric oxide in blood and other tissues. The totality of these observations supports our general hypothesis that exposure to BLAST can lead to antioxidant depletion and oxidative damage. Understanding the mechanism(s) of BLAST-induced oxidative stress may have important implications that include a potential beneficial role for antioxidants as a prophylaxis or as secondary treatment of injury after exposure alongside other protective and therapeutic modalities. In addition, it suggests a role for endogenous nitric oxide in the injury. This report reviews experimental evidence of BLAST-induced antioxidant depletion, and the potential benefit from antioxidant supplementation before exposure.

CONTROLLED TERM: Medical Descriptors:
*blast injury: ET, etiology
*blast injury: TH, therapy
*noise injury: ET, etiology
*noise injury: TH, therapy
*lung injury: ET, etiology
depletion
vitamin supplementation
explosion
shock wave
mathematical model
atmospheric pressure
cardiopulmonary hemodynamics
heart injury
kidney injury
digestive system injury
liver injury
spleen injury
stomach injury
pancreas injury
adrenal disease
oxidative stress
mining
accident
hearing loss
lipid peroxidation
signal transduction
hyperbaric oxygen
ear protection
human
nonhuman
review
priority journal
Drug Descriptors:
*antioxidant: EC, endogenous compound
*antioxidant: PD, pharmacology
*antioxidant: PO, oral drug administration
reactive oxygen metabolite
superoxide
hydroxyl radical
nitrogen dioxide
nitric oxide: EC, endogenous compound
free radical
thiyl radical

alpha tocopherol: PD, pharmacology
alpha tocopherol: PO, oral drug administration
ascorbic acid: PD, pharmacology
ascorbic acid: PO, oral drug administration
thioctic acid: PD, pharmacology
thioctic acid: PO, oral drug administration
allopurinol: PD, pharmacology
superoxide dismutase: PD, pharmacology
deferoxamine mesylate: CB, drug combination
deferoxamine mesylate: PD, pharmacology
glial cell line derived neurotrophic factor: CB, drug combination
glial cell line derived neurotrophic factor: PD, pharmacology
levacecarnine: PD, pharmacology
methyl dextro aspartate: PD, pharmacology
glutathione: PD, pharmacology
salicylic acid: CB, drug combination
salicylic acid: PD, pharmacology
acetylcysteine: CB, drug combination
acetylcysteine: PD, pharmacology
nitric oxide synthase inhibitor: PD, pharmacology
n(g) nitroarginine methyl ester: PD, pharmacology
unclassified drug

CAS REGISTRY NO.: (superoxide) 11062-77-4; (hydroxyl radical) 3352-57-6; (nitrogen dioxide) 10102-44-0; (nitric oxide) 10102-43-9; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (thioctic acid) 1077-29-8, **1200-22-2**, 2319-84-8, 62-46-4; (allopurinol) 315-30-0; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1; (deferoxamine mesylate) 138-14-7, 5115-09-3; (levacecarnine) **3040-38-8**, 5080-50-2; (glutathione) 70-18-8; (salicylic acid) 63-36-5, 69-72-7; (acetylcysteine) **616-91-1**; (n(g) nitroarginine methyl ester) 50903-99-6

L453 ANSWER 51 OF 79 EMBASE

ACCESSION NUMBER: 2005221314 EMBASE Full-text

TITLE: Nutritional issues and supplements in amyotrophic lateral sclerosis and other neurodegenerative disorders.

AUTHOR: Cameron A.; Rosenfeld J.

CORPORATE SOURCE: Dr. J. Rosenfeld, Carolinas Neuromuscular/ALS Center, 1000 Blythe Boulevard, Charlotte, NC 28203, United States. jrosenfeld@carolinas.org

SOURCE: Current Opinion in Clinical Nutrition and Metabolic Care, (2002) Vol. 5, No. 6, pp. 631-643. .
Refs: 107
ISSN: 1363-1950 CODEN: COCMF3

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 008 Neurology and Neurosurgery
029 Clinical Biochemistry
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 2005
Last Updated on STN: 9 Jun 2005

ABSTRACT: Purpose of review: Aggressive nutritional intervention has become a

cornerstone of treatment for many patients with neuromuscular diseases, in particular, motor neuron disease. Malnutrition is a common problem among patients with amyotrophic lateral sclerosis. Over the past decade, the recognition of nutrition as an independent, prognostic factor for survival and disease complications in amyotrophic lateral sclerosis has illustrated the importance of individualized nutritional management in symptomatic treatment. Paramount issues for nutritional management in amyotrophic lateral sclerosis include caloric supplementation, the diagnosis/treatment of dysphagia, and the timing/safety/efficacy of percutaneous endoscopic gastrostomy placement. Recent findings: In addition, many amyotrophic lateral sclerosis patients self-medicate with a variety of vitamins, herbs, and other dietary supplements. Outcome-based research for the use of nutraceuticals and functional foods in the treatment and prevention of amyotrophic lateral sclerosis and other neuromuscular diseases is in its early stages. In the past year, however, several interesting papers have been published that lend support to the use of dietary supplements as primary treatments for amyotrophic lateral sclerosis and other motor neuron disorders. Summary: Common or overlapping etiologies in disparate neurodegenerative diseases have led to the promise that optimal nutritional care and the appropriate use of dietary supplements in amyotrophic lateral sclerosis will have implications for the nutritional management of other degenerative conditions such as Parkinson's, Alzheimer's, and Huntington's disease. Furthermore, evidence supporting the efficacy of dietary supplements in amyotrophic lateral sclerosis may lend clues to the treatment of other neuromuscular disorders such as the muscular dystrophies.

CONTROLLED TERM: Medical Descriptors:
*degenerative disease: DT, drug therapy
*degenerative disease: PC, prevention
*degenerative disease: TH, therapy
*amyotrophic lateral sclerosis: DT, drug therapy
*amyotrophic lateral sclerosis: PC, prevention
*amyotrophic lateral sclerosis: TH, therapy
*nutrition
*diet supplementation
caloric intake
dysphagia: DI, diagnosis
dysphagia: TH, therapy
percutaneous endoscopic gastrostomy
functional food
treatment outcome
malnutrition
oxidative stress
grape seed
plant seed
drug effect
drug efficacy
human
nonhuman
clinical trial
review
Drug Descriptors:
*nutraceutical: DT, drug therapy
*herbaceous agent: DT, drug therapy
*vitamin: CT, clinical trial
*vitamin: CB, drug combination
*vitamin: DO, drug dose
*vitamin: DT, drug therapy
glutamic acid: EC, endogenous compound
mineral: DT, drug therapy

cyanocobalamin: DT, drug therapy
alpha tocopherol: CT, clinical trial
alpha tocopherol: DO, drug dose
alpha tocopherol: DT, drug therapy
pyridoxine: DT, drug therapy
folic acid: DT, drug therapy
zinc: DT, drug therapy
thioctic acid: DT, drug therapy
green tea extract: DT, drug therapy
selenium: DT, drug therapy
ascorbic acid: CB, drug combination
ascorbic acid: DO, drug dose
ascorbic acid: DT, drug therapy
retinol: DT, drug therapy
curcumin: DT, drug therapy
ginseng extract: DT, drug therapy
glutathione: DT, drug therapy
phytoestrogen: DT, drug therapy
grape seed extract: DT, drug therapy
plant extract: DT, drug therapy
pycnogenol: DT, drug therapy
prasterone: DT, drug therapy
creatinine: DT, drug therapy
ubidecarenone: DT, drug therapy
carnitine: DT, drug therapy
Ginkgo biloba extract: DT, drug therapy
trientine: CB, drug combination
trientine: DT, drug therapy
genistein: DT, drug therapy
procyanidin derivative: DT, drug therapy
ubiquinone: DT, drug therapy
creatine: DT, drug therapy
acetylcysteine: DT, drug therapy
levacecarnine: DT, drug therapy
unclassified drug

CAS REGISTRY NO.: (glutamic acid) 11070-68-1, 138-15-8, 56-86-0, 6899-05-4; (cyanocobalamin) 53570-76-6, 68-19-9, 8064-09-3; (alpha tocopherol) **1406-18-4**, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (pyridoxine) 12001-77-3, 58-56-0, 65-23-6, **8059-24-3**; (folic acid) 59-30-3, 6484-89-5; (zinc) **7440-66-6**; (thioctic acid) 1077-29-8, **1200-22-2**, 2319-84-8, 62-46-4; (selenium) **7782-49-2**; (ascorbic acid) 134-03-2, 15421-15-5, **50-81-7**; (retinol) 68-26-8, 82445-97-4; (curcumin) 458-37-7; (glutathione) 70-18-8; (pycnogenol) 480-17-1; (prasterone) 53-43-0; (creatinine) 19230-81-0, 60-27-5; (ubidecarenone) 303-98-0; (carnitine) 461-06-3, 541-15-1, 56-99-5; (trientine) 112-24-3, 38260-01-4; (genistein) 446-72-0; (ubiquinone) 1339-63-5; (creatine) 57-00-1; (acetylcysteine) **616-91-1**; (levacecarnine) **3040-38-8**, 5080-50-2

L453 ANSWER 52 OF 79 EMBASE

ACCESSION NUMBER: 2002143254 EMBASE Full-text
TITLE: Alternative and complementary approaches to treating common ocular disorders: Part 2 - Retinopathy and macular degeneration.
AUTHOR: Meletis C.D.; Centrone W.
CORPORATE SOURCE: C.D. Meletis, Natl. Coll. of Naturopathic Medicine,

Portland, OR, United States
SOURCE: Alternative and Complementary Therapies, (2002) Vol. 8, No. 2, pp. 97-101. .
Refs: 42
ISSN: 1076-2809 CODEN: ACTHFZ
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 012 Ophthalmology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 8 May 2002
Last Updated on STN: 8 May 2002
CONTROLLED TERM: Medical Descriptors:
*eye disease: DT, drug therapy
*eye disease: PC, prevention
alternative medicine
diabetic retinopathy: DT, drug therapy
diabetic retinopathy: PC, prevention
vitamin supplementation
retina macula age related degeneration: DT, drug therapy
retina macula age related degeneration: PC, prevention
review
Drug Descriptors:
***ascorbic acid: DO, drug dose**
***ascorbic acid: DT, drug therapy**
***alpha tocopherol: DO, drug dose**
***alpha tocopherol: DT, drug therapy**
***retinol: DO, drug dose**
***retinol: DT, drug therapy**
***beta carotene: DO, drug dose**
***beta carotene: DT, drug therapy**
***xanthophyll: DO, drug dose**
***xanthophyll: DT, drug therapy**
***vitamin: DT, drug therapy**
quercetin: DO, drug dose
quercetin: DT, drug therapy
ubiquinone: DO, drug dose
ubiquinone: DT, drug therapy
selenium: DO, drug dose
selenium: DT, drug therapy
rutoside: DO, drug dose
rutoside: DT, drug therapy
thioctic acid: DO, drug dose
thioctic acid: DT, drug therapy
magnesium: DO, drug dose
magnesium: DT, drug therapy
bioflavonoid: DO, drug dose
bioflavonoid: DT, drug therapy
Ginkgo biloba extract: DO, drug dose
Ginkgo biloba extract: DT, drug therapy
bilberry: DO, drug dose
bilberry: DT, drug therapy
coleus forskoliin extract: DO, drug dose
coleus forskoliin extract: DT, drug therapy
melatonin: DO, drug dose
melatonin: DT, drug therapy
Vaccinium myrtillus extract: DO, drug dose
Vaccinium myrtillus extract: DT, drug therapy
unclassified drug

CAS REGISTRY NO.: (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (retinol) 68-26-8, 82445-97-4; (beta carotene) 7235-40-7; (xanthophyll) 127-40-2, 52842-48-5; (quercetin) 117-39-5; (ubiquinone) 1339-63-5; (selenium) 7782-49-2; (rutoside) 153-18-4, 22519-99-9; (thioctic acid) 1077-29-8, 1200-22-2, 2319-84-8, 62-46-4; (magnesium) 7439-95-4; (melatonin) 73-31-4

L453 ANSWER 53 OF 79 EMBASE

ACCESSION NUMBER: 2002071256 EMBASE Full-text

TITLE: [Orthomolecular medicine: Usefulness of micronutrients in diabetes mellitus].
ORTHOMOLEKULARE MEDIZIN: VOM NUTZEN DER MICKRONAHSTOFFE AM BEISPIEL DES DIABETES MELLITUS.

AUTHOR: Grober U.
CORPORATE SOURCE: U. Grober, Rat-Beil-Strasse 11, 60318 Frankfurt, Germany. uwegroeber@gmx.net

SOURCE: Deutsche Apotheker Zeitung, (14 Feb 2002) Vol. 142, No. 7, pp. 46-52. .
Refs: 22
ISSN: 0011-9857 CODEN: DAZEA2
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 003 Endocrinology
005 General Pathology and Pathological Anatomy
030 Pharmacology
037 Drug Literature Index

LANGUAGE: German
ENTRY DATE: Entered STN: 7 Mar 2002
Last Updated on STN: 7 Mar 2002

CONTROLLED TERM: Medical Descriptors:
*diabetes mellitus: DT, drug therapy
*diet supplementation
cataract: CO, complication
cataract: ET, etiology
diabetic neuropathy: CO, complication
diabetic neuropathy: ET, etiology
pathogenesis
protein glycosylation
oxidative stress
diabetic microangiopathy: CO, complication
diabetic microangiopathy: ET, etiology
drug indication
human
article
Drug Descriptors:
***trace element: AD, drug administration**
***trace element: DT, drug therapy**
***trace element: IV, intravenous drug administration**
***trace element: PO, oral drug administration**
aldehyde reductase: EC, endogenous compound
antioxidant: DT, drug therapy
ascorbic acid: DT, drug therapy
alpha tocopherol: DT, drug therapy
vitamin B group: DT, drug therapy
beta carotene: DT, drug therapy
lycopene: DT, drug therapy
vitamin B complex: DT, drug therapy

nicotinamide: DT, drug therapy
folic acid antagonist: DT, drug therapy
cyanocobalamin: DT, drug therapy
biotin: DT, drug therapy
thioctic acid: DT, drug therapy
magnesium: DT, drug therapy
zinc: DT, drug therapy
chromium: DT, drug therapy
manganese: DT, drug therapy
selenium: DT, drug therapy
ubidecarenone: DT, drug therapy
carnitine: DT, drug therapy
bioflavonoid: DT, drug therapy
anthocyanin: DT, drug therapy
omega 3 fatty acid: DT, drug therapy
omega 3 fatty acid: PO, oral drug administration
benfotiamine: DT, drug therapy
benfotiamine: PO, oral drug administration
linolenic acid: DT, drug therapy
linolenic acid: PO, oral drug administration
inositol nicotinate: AD, drug administration
inositol nicotinate: DT, drug therapy
inositol nicotinate: IV, intravenous drug administration
inositol nicotinate: PO, oral drug administration
pantethine: DT, drug therapy
pantethine: PO, oral drug administration

CAS REGISTRY NO.: (aldehyde reductase) 58591-34-7, 9023-11-4, 9028-31-3; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (vitamin B group) 12001-76-2; (beta carotene) 7235-40-7; (lycopene) 502-65-8; (nicotinamide) 11032-50-1, 98-92-0; (cyanocobalamin) 53570-76-6, 68-19-9, 8064-09-3; (biotin) 58-85-5; (thioctic acid) 1077-29-8, 1200-22-2, 2319-84-8, 62-46-4; (magnesium) 7439-95-4; (zinc) 7440-66-6; (chromium) 16065-83-1, 7440-47-3; (manganese) 16397-91-4, 7439-96-5; (selenium) 7782-49-2; (ubidecarenone) 303-98-0; (carnitine) 461-06-3, 541-15-1, 56-99-5; (benfotiamine) 22457-89-2; (linolenic acid) 1955-33-5, 463-40-1; (inositol nicotinate) 21214-49-3, 6556-11-2; (pantethine) 16816-67-4

L453 ANSWER 54 OF 79 EMBASE

ACCESSION NUMBER: 2002063819 EMBASE Full-text
TITLE: Alternative and complementary approaches to treating common ocular disorders: Part 1 - Cataracts and Glaucoma.
AUTHOR: Meletis C.D.; Centrone W.
CORPORATE SOURCE: C.D. Meletis, Natl. Coll. of Naturopathic Medicine, Portland, OR, United States
SOURCE: Alternative and Complementary Therapies, (2002) Vol. 8, No. 1, pp. 17-22. .
Refs: 47
ISSN: 1076-2809 CODEN: ACTHFZ
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 012 Ophthalmology
017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Mar 2002

Last Updated on STN: 1 Mar 2002

CONTROLLED TERM: Medical Descriptors:
*cataract: DT, drug therapy
*cataract: SU, surgery
*cataract: TH, therapy
*glaucoma: DT, drug therapy
*glaucoma: SU, surgery
*glaucoma: TH, therapy
*alternative medicine
diabetic retinopathy: TH, therapy
retina macula degeneration: TH, therapy
clinical feature
risk factor
high risk population
primary prevention
diet therapy
symptom
aging
herbal medicine
homeopathy
human
review
Drug Descriptors:
*herbaceous agent: AD, drug administration
*herbaceous agent: CB, drug combination
*herbaceous agent: DO, drug dose
*herbaceous agent: DT, drug therapy
*herbaceous agent: TP, topical drug administration
*pulsatilla pratensis extract: DT, drug therapy
*cineraria maritima extract: DT, drug therapy
*coleus forskolin extract: DO, drug dose
*coleus forskolin extract: DT, drug therapy
*antiglaucoma agent: CB, drug combination
*antiglaucoma agent: DO, drug dose
*antiglaucoma agent: DT, drug therapy
*sambucus nigra extract: AD, drug administration
*sambucus nigra extract: CB, drug combination
*sambucus nigra extract: DT, drug therapy
*sambucus nigra extract: TP, topical drug administration
Vaccinium myrtillus extract: CB, drug combination
Vaccinium myrtillus extract: DT, drug therapy
ascorbic acid: DO, drug dose
ascorbic acid: DT, drug therapy
alpha tocopherol: DO, drug dose
alpha tocopherol: DT, drug therapy
retinol: DO, drug dose
retinol: DT, drug therapy
beta carotene: DO, drug dose
beta carotene: DT, drug therapy
xanthophyll: DO, drug dose
xanthophyll: DT, drug therapy
quercetin: DO, drug dose
quercetin: DT, drug therapy
ubidecarenone: DO, drug dose
selenium: DO, drug dose
selenium: DT, drug therapy
rutoside: DO, drug dose
rutoside: DT, drug therapy
thioctic acid: DO, drug dose
thioctic acid: DT, drug therapy

magnesium: DO, drug dose
magnesium: DT, drug therapy
bioflavonoid: DO, drug dose
bioflavonoid: DT, drug therapy
Ginkgo biloba extract: CB, drug combination
Ginkgo biloba extract: DO, drug dose
Ginkgo biloba extract: DT, drug therapy
melatonin: DO, drug dose
melatonin: DT, drug therapy
Crataegus extract: CB, drug combination
Crataegus extract: DT, drug therapy
unclassified drug

CAS REGISTRY NO.: (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (retinol) 68-26-8, 82445-97-4; (beta carotene) 7235-40-7; (xanthophyll) 127-40-2, 52842-48-5; (quercetin) 117-39-5; (ubidecarenone) 303-98-0; (selenium) 7782-49-2; (rutoside) 153-18-4, 22519-99-9; (thioctic acid) 1077-29-8, 1200-22-2, 2319-84-8, 62-46-4; (magnesium) 7439-95-4; (melatonin) 73-31-4; (Crataegus extract) 82374-45-6

L453 ANSWER 55 OF 79 EMBASE

ACCESSION NUMBER: 2000305486 EMBASE Full-text
TITLE: Nutrients and HIV: Part three - N-acetylcysteine, alpha-lipoic acid, L-glutamine, and L-carnitine.
AUTHOR: Patrick L.
CORPORATE SOURCE: L. Patrick, 540 W Prince, Tucson, AZ 85705, United States
SOURCE: Alternative Medicine Review, (2000) Vol. 5, No. 4, pp. 290-305. .
Refs: 102
ISSN: 1089-5159 CODEN: ALMRFP
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 004 Microbiology
017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Sep 2000
Last Updated on STN: 14 Sep 2000

ABSTRACT: The role of antioxidants in preventing apoptosis and viral activation in HIV is well documented. N-acetylcysteine, glutathione, and alpha-lipoic acid have been shown to interrupt the process of viral activation and CD4 cell death. L-glutamine has been shown to improve glutathione levels and significantly increase lean body mass in HIV infection. The literature on the use of L-carnitine and acetyl-L-carnitine in treating mitochondrial toxicity, both in muscle and nerve pathologies is relevant in nutritional treatment of HIV, given the mitochondrial toxicity of nucleoside analog reverse transcriptase inhibitor therapy. The current use of highly-active antiviral therapies, their toxicity, and significant failure rates have created the need for a more conservative reassessment of HIV treatment. The adjunctive use of nutrient therapy in the treatment of HIV is reviewed here.

CONTROLLED TERM: Medical Descriptors:
*Human immunodeficiency virus infection: DT, drug therapy
*Human immunodeficiency virus infection: TH, therapy
*diet supplementation
apoptosis
lymphocyte

lean body weight
mitochondrion
antioxidant activity
antiviral activity
oxidation reduction state
virus activation
human
male
female
clinical trial
randomized controlled trial
double blind procedure
controlled study
review
Drug Descriptors:
*acetylcysteine
*thioctic acid
*glutamine
*carnitine
*antioxidant
glutathione: EC, endogenous compound
CD4 antigen
levacecarnine
nucleoside analog: DT, drug therapy
nucleoside analog: TO, drug toxicity
RNA directed DNA polymerase inhibitor: DT, drug therapy
RNA directed DNA polymerase inhibitor: TO, drug toxicity
antivirus agent: DT, drug therapy
antivirus agent: TO, drug toxicity
ubiquinone

CAS REGISTRY NO.: (acetylcysteine) **616-91-1**; (thioctic acid) 1077-29-8, **1200-22-2**, 2319-84-8, 62-46-4; (glutamine) 56-85-9, 6899-04-3; (carnitine) 461-06-3, 541-15-1, 56-99-5; (glutathione) 70-18-8; (levacecarnine) **3040-38-8**, 5080-50-2; (ubiquinone) 1339-63-5

L453 ANSWER 56 OF 79 EMBASE

ACCESSION NUMBER: 2000274515 EMBASE Full-text
TITLE: Nutritional therapies for ulcerative colitis: Literature review, chart review study, and future research.
AUTHOR: Edman J.S.; Williams W.H.; Atkins R.C.
CORPORATE SOURCE: J.S. Edman, Edman Nutritional Devt. Services, 31 Rockledge Rd, Hartsdale, NY 10530, United States
SOURCE: Alternative Therapies in Health and Medicine, (2000) Vol. 6, No. 1, pp. 55-63. .
Refs: 65
ISSN: 1078-6791 CODEN: ATHMF7
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 24 Aug 2000
Last Updated on STN: 24 Aug 2000
ABSTRACT: Few clinical studies suggest a significant influence of diet or nutritional supplementation on ulcerative colitis. One reason is that ulcerative colitis, like many chronic diseases, is multifactorial. This article will describe and review the relevant literature on ulcerative colitis,

including studies of (1) diet and intravenous therapy, (2) nutritional status and nutritional supplementation, and (3) bowel flora and immune function and their influences. Also, results of a retrospective chart review study that was done at a complementary medicine office will be presented. Finally, suggestions for future research will be discussed based on a nutritional model of ulcerative colitis. Taken together, it is hoped that these areas will clarify the current status of ulcerative colitis research and promote the types of investigations that are necessary to establish the validity of nutritional influences on ulcerative colitis as well as the mechanisms that are involved.

CONTROLLED TERM: Medical Descriptors:
*nutrition
*ulcerative colitis: DT, drug therapy
*ulcerative colitis: TH, therapy
*diet therapy
diet supplementation
nutritional status
total parenteral nutrition
intestine flora
immune response
symptomatology
human
male
female
clinical article
adolescent
aged
adult
article
Drug Descriptors:
***multivitamin: DO, drug dose**
***multivitamin: DT, drug therapy**
*fatty acid: DO, drug dose
*fatty acid: DT, drug therapy
*probiotic agent: DO, drug dose
*probiotic agent: DT, drug therapy
retinol: DO, drug dose
retinol: DT, drug therapy
beta carotene: DO, drug dose
beta carotene: DT, drug therapy
ergocalciferol: DO, drug dose
ergocalciferol: DT, drug therapy
thiamine: DO, drug dose
thiamine: DT, drug therapy
riboflavin: DO, drug dose
riboflavin: DT, drug therapy
nicotinic acid: DO, drug dose
nicotinic acid: DT, drug therapy
nicotinamide: DO, drug dose
nicotinamide: DT, drug therapy
pantethine: DO, drug dose
pantethine: DT, drug therapy
pantothenic acid: DO, drug dose
pantothenic acid: DT, drug therapy
pyridoxine: DO, drug dose
pyridoxine: DT, drug therapy
pyridoxal 5 phosphate: DO, drug dose
pyridoxal 5 phosphate: DT, drug therapy
cyanocobalamin: DO, drug dose
cyanocobalamin: DT, drug therapy

folic acid: DO, drug dose
folic acid: DT, drug therapy
biotin: DO, drug dose
biotin: DT, drug therapy
choline: DO, drug dose
choline: DT, drug therapy
inositol: DO, drug dose
inositol: DT, drug therapy
oleic acid: DO, drug dose
oleic acid: DT, drug therapy
linoleic acid: DO, drug dose
linoleic acid: DT, drug therapy
gamma linolenic acid: DO, drug dose
gamma linolenic acid: DT, drug therapy
icosapentaenoic acid: DO, drug dose
icosapentaenoic acid: DT, drug therapy
4 aminobenzoic acid: DO, drug dose
4 aminobenzoic acid: DT, drug therapy
ascorbic acid: DO, drug dose
ascorbic acid: DT, drug therapy
bioflavonoid: DO, drug dose
bioflavonoid: DT, drug therapy
alpha tocopherol: DO, drug dose
alpha tocopherol: DT, drug therapy
molybdenum: DO, drug dose
molybdenum: DT, drug therapy
vanadium: DO, drug dose
vanadium: DT, drug therapy
selenium: DO, drug dose
selenium: DT, drug therapy
unindexed drug

CAS REGISTRY NO.: (retinol) 68-26-8, 82445-97-4; (beta carotene) 7235-40-7; (ergocalciferol) 50-14-6, 50809-47-7, 8042-78-2; (thiamine) 59-43-8, 67-03-8; (riboflavin) 83-88-5; (nicotinic acid) 54-86-4, 59-67-6; (nicotinamide) 11032-50-1, 98-92-0; (pantethine) 16816-67-4; (pantothenic acid) 20938-62-9, 79-83-4; (pyridoxine) 12001-77-3, 58-56-0, 65-23-6, 8059-24-3; (pyridoxal 5 phosphate) 54-47-7; (cyanocobalamin) 53570-76-6, 68-19-9, 8064-09-3; (folic acid) 59-30-3, 6484-89-5; (biotin) 58-85-5; (choline) 123-41-1, 13232-47-8, 1927-06-6, 4858-96-2, 62-49-7, 67-48-1; (inositol) 55608-27-0, 6917-35-7, 87-89-8; (oleic acid) 112-80-1, 115-06-0; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (gamma linolenic acid) 1686-12-0; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (4 aminobenzoic acid) 150-13-0; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (molybdenum) 7439-98-7; (vanadium) 7440-62-2; (selenium) 7782-49-2

L453 ANSWER 57 OF 79 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:578951 HCAPLUS Full-text
DOCUMENT NUMBER: 145:51063
TITLE: Anti-inflammatory formulations comprising carotenoid and a polyphenol
INVENTOR(S): Haines, David; Mabmoud, Eadia F.; Pratt, Steven G.; Wise, John

PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 621,802.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006127505	A1	20060615	US 2005-540635	20051212 <--
US 2003170328	A1	20030911	US 2003-345856	20030116 <--
US 2004076691	A1	20040422	US 2003-621802	20030716 <--
WO 2005009422	A1	20050203	WO 2004-US22897	20040716 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-350298P	P	20020116 <--
US 2003-345856	A2	20030116 <--
US 2003-621802	A2	20030716 <--
WO 2004-US22897	W	20040716

ED Entered STN: 16 Jun 2006
AB The invention features compns. and methods for reducing inflammation of ocular tissue by administering to an individual a mixture of ingredients containing carotenoid and a polyphenol compound For example, in vitro studies indicated that astaxanthin suppresses expression of inflammation-associated T cell surface antigens in PMA/1-treated human PBMC.

L453 ANSWER 58 OF 79 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1074096 HCAPLUS Full-text
DOCUMENT NUMBER: 142:37306
TITLE: Nutritional compositions containing selenium and lithium and use thereof as anti-HIV and anti-AIDS nutraceuticals and immunostimulants.
PATENT ASSIGNEE(S): Serfontein, Willem Jacob, S. Afr.
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004107881	A1	20041216	WO 2004-ZA60	20040603 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1643865	A1	20060412	EP 2004-757439		20040603 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
BR 2004010962	A	20060704	BR 2004-10962		20040603 <--
CN 1829453	A	20060906	CN 2004-80022039		20040603 <--
US 2006078629	A1	20060413	US 2005-293466		20051202 <--
PRIORITY APPLN. INFO.:			ZA 2003-4360	A	20030604 <--
			ZA 2003-5112	A	20030701 <--
			ZA 2003-6713	A	20030828 <--
			ZA 2004-53	A	20040106
			WO 2004-ZA60	W	20040603

ED Entered STN: 16 Dec 2004

AB A nutrient composition or combination of compns. for the treatment or prophylaxis of infections, in particular HIV/AIDS, and for the enhancement of immunity, based on selenium in synergistic combinations with biol. absorbable sources of glutathione, alkalinity enhancing components, a source of sulfur, an anti-mutagenic compound and for oral use, gastrointestinal absorption enhancers. Special uses relate to reducing risks of mother-to-child transmission and treating HIV-pos. pregnant women. Preferred further ingredients include antiinflammatory compds. and nutrients which control homocysteine.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L453 ANSWER 59 OF 79 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:550751 HCAPLUS Full-text

DOCUMENT NUMBER: 141:82338

TITLE: Lipid metabolism and fructus crataegus, bioflavonoids from hawthorn berry for inhibiting 3-HMG-CoA reductase and cholesterol synthesis

INVENTOR(S): Liao, Benedict Schue; Liao, Judy Fu-Chuan; Liao, Alex; Liao, Austin; Liao, Burton Arthur; Liao-Tung, Su-Hsin; Liao-Nieng, Susan; Nieng, Cathy; Liao-Chen, Su-Lien; Liao, Schue-Yuan

PATENT ASSIGNEE(S): Liao Medical Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO

DOCUMENT TYPE: **Patent**

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004132816	A1	20040708	US 2003-337434		20030106 <--
US 2006040911	A1	20060223	US 2005-226862		20050913 <--
PRIORITY APPLN. INFO.:			US 2003-337434	A1	20030106 <--

ED Entered STN: 09 Jul 2004

AB A method for treating and/or preventing the cardiovascular and hepatic diseases induced by hyperlipidemia which comprises administered thereto an effective amount of bioflavonoids extract derived from hawthorn berry (fructus crataegus) such as rutin, quercetin, kaempferol and vitexin or a mixture thereof. Administration of rutin, quercetin, kaempferol, and vitexin to rabbits decreased plasma total cholesterol and triglycerides by 32-33%, 45-

47%, 30-30% and 22-17%, resp., as compared to that of a control group. Rutin, quercetin, kaempferol and vitexin were more effective in reducing plasma total cholesterol and triglycerides than Simvastatin. Furthermore, liver function and WBC were not affected as that of the Simvastatin group. The bioflavonoids are added to food products, beverages, and multivitamin tablets.

L453 ANSWER 60 OF 79 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:545461 HCAPLUS Full-text
DOCUMENT NUMBER: 135:127168
TITLE: Reduced form of coenzyme Q in highly bioavailable stable dosage forms
INVENTOR(S): Chopra, Raj K.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001052822	A1	20010726	WO 2001-US1997	20010118 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6740338	B1	20040525	US 2000-488332	20000120 <--
CA 2397447	AA	20010726	CA 2001-2397447	20010118 <--
EP 1251834	A1	20021030	EP 2001-942547	20010118 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:
US 2000-488332 A 20000120 <--
US 2000-637559 A 20000811 <--
WO 2001-US1997 W 20010118 <--

OTHER SOURCE(S): MARPAT 135:127168
ED Entered STN: 27 Jul 2001
AB The present invention relates to a reduced form of coenzyme Q also known as ubiquinol in a pharmaceutical or cosmetic dosage form, preferably an oral dosage form such as a gelatin capsule. Compns. according to the present invention show high bioavailability of the reduced form of Coenzyme Q. The present invention relates to storage stable compns. comprising effective amts. of ubiquinol in combination with an amount of a reducing agent effective to maintain ubiquinol in its reduced state when formulated as in, e.g., capsules, tablets and other orally administrable form. A capsule formulation contained vitamin E acetate 6, hydroxylated lecithin 4, phosphatidylcholine 32, medium-chain triglyceride 20, Gelucire 30, coenzyme Q10 4, and ascorbyl palmitate 4%.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L453 ANSWER 61 OF 79 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:283775 HCAPLUS Full-text
DOCUMENT NUMBER: 134:300800
TITLE: Compositions for treating neurobehavioral disorders

INVENTOR(S): Bechthold, Joyce Corinne; Lilly, Thomas Duff
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001026642	A2	20010419	WO 2000-US27894	20001006 <--
WO 2001026642	A3	20020510		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-158604P P 19991008 <--
US 1999-164049P P 19991108 <--
US 1999-166068P P 19991117 <--
US 2000-201043P P 20000501 <--

ED Entered STN: 20 Apr 2001

AB This composition is for treating neurobehavioral disorders, by restoring normal neurotransmitter, receptor, transport and metabolic function. The first stage of treatment is to administer an i.v. composition designed to treat the patient symptoms. The next stage is supplemental oral support. This invention embodies compns. for i.v. treatment of certain types of neurobiol. disorders and methods of diagnosis, which comprises specialized testing and pre-diagnosis of underlying neurol. conditions, immunization, and methods of education and psychol. support available remotely through the Internet or by mail. Thus, an i.v. solution contains at least 1 amino acid, vitamin C and electrolytes and a corticosteroid.

L453 ANSWER 62 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2006-172100 [18] WPIX
CROSS REFERENCE: 2006-172099
DOC. NO. CPI: C2006-057499 [18]
TITLE: Composition, useful as nutritional supplement, comprises beta-carotene, B-complex vitamins, vitamin C, vitamin D3, vitamin E, chromium, copper, iron, magnesium, selenium, zinc, alpha lipoic acid, lutein and lycopene
DERWENT CLASS: B05; D13
INVENTOR: BALZER C J; GIORDANO J A
PATENT ASSIGNEE: (BALZ-I) BALZER C J; (GIOR-I) GIORDANO J A
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20060034916	A1	20060216	(200618)*	EN	13[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20060034916	A1 Cont of	US 2004-916534	20040812
US 20060034916	A1	US 2005-214858	20050831

PRIORITY APPLN. INFO: US 2005-214858 20050831
US 2004-916534 20040812

INT. PATENT CLASSIF.:
IPC ORIGINAL: A61K0031-01 [I,C]; A61K0031-015 [I,A]; A61K0031-352 [I,C] ; A61K0031-355 [I,A]; A61K0031-375 [I,A]; A61K0031-4415 [I,A]; A61K0031-455 [I,A]; A61K0031-506 [I,C]; A61K0031-51 [I,A]; A61K0031-519 [I,C]; A61K0031-525 [I,A] ; A61K0031-7135 [I,C]; A61K0031-714 [I,A]

BASIC ABSTRACT:

US 20060034916 A1 UPAB: 20060315

NOVELTY - Composition (I) comprises beta-carotene, B-complex vitamins, vitamin C, vitamin D3, vitamin E, chromium, copper, iron, magnesium, selenium, zinc, alpha lipoic acid, lutein and lycopene, where (I) is substantially free of other added vitamins and minerals.

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - (I) is useful as a nutritional supplement for a patient having nutritional deficiencies in a physiologically stressful state (claimed) e.g. pregnancy, lactation and physiologically stressful states, that results from elevated metabolic demand, increased plasma volume, decreased concentrations of nutrients or decreased concentrations of nutrient-binding proteins (e.g. serum-ferritin and maltose-binding). The ability of (I) to supplement nutrition was tested in 60 pregnant women entering the second trimester of pregnancy and 60 lactating women aged 20-36 years. The results showed that there was a statistical improvement in the nutritional status of all vitamins and minerals.

ADVANTAGE - (I) is in the swallowable, chewable or dissolvable form, which improves the patient compliance by overcoming the discomfort of swallowing the whole tablet and provides positive impacts on treatment efficiency.

MANUAL CODE: CPI: B03-A; B03-B; B03-C; B03-D; B03-E; B03-F; B03-H; B05-A01B; B05-A03A; B05-A03B; B05-B01D; B05-B02C; B06-D17; B07-H; B10-A07; B10-E04A; B14-E11; D03-H01T2B

TECH

INORGANIC CHEMISTRY - Preferred Components: The chromium comprises chromium picolinate, the copper comprises copper gluconate, the iron comprises micronized iron ferronyl, the magnesium comprises magnesium oxide, the selenium comprises selenomethionine, and the zinc comprises zinc oxide.

ORGANIC CHEMISTRY - Preferred Components: The B-complex vitamins comprise vitamin B1 (thiamine mononitrate), vitamin B2 (riboflavin), vitamin B3 (niacinamide, niacin), vitamin B5 (pantothenic acid), vitamin B6 (pyridoxine hydrochloride), vitamin B7 (biotin), vitamin B9 (folic acid, folacin, metafolin, folate or natural isomers of folate ((6S)-tetrahydrofolic acid, 5-methyl-(6S)-tetrahydrofolic acid, 5-formyl-(6S)-tetrahydrofolic acid, 10-formyl-(6R)-tetrahydrofolic acid, 5,10-methylene-(6R)-tetrahydrofolic acid, 5,10-methenyl-(6R)-tetrahydrofolic acid, 5-formimino-(6S)-tetrahydrofolic acid and/or their polyglutamyl derivatives)) and/or vitamin B12 (cyanocobalamin). The vitamin C comprises ascorbic acid, the vitamin D3 comprises

cholecalciferol, and the vitamin E comprises d-alpha succinate or d-alpha tocopheryl succinate.

L453 ANSWER 63 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-294714 [30] WPIX
DOC. NO. CPI: C2005-091030 [30]
TITLE: Dietary supplement or topical formulation useful for preventing or retarding progression of diabetic microvascular and macrovascular complications e.g. diabetic retinopathy, atherosclerosis comprises gamma-tocopherol and its ester
DERWENT CLASS: B05; D13
INVENTOR: PAPAS A M; PAPAS K A; PAPAS K K
PATENT ASSIGNEE: (PAPA-I) PAPAS A M; (PAPA-I) PAPAS K A; (PAPA-I) PAPAS K K; (YASO-N) YASOO HEALTH INC
COUNTRY COUNT: 106

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20050074447	A1	20050407	(200530)*	EN	11[0]	A61K038-43
WO 2005032478	A2	20050414	(200530)	EN		A61K000-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20050074447	A1 Provisional	US 2003-507826P	20031001
US 20050074447	A1	US 2004-956538	20041001
WO 2005032478	A2	WO 2004-US32210	20041001

PRIORITY APPLN. INFO: US 2004-956538 20041001
US 2003-507826P 20031001
INT. PATENT CLASSIF.:
MAIN: A61K000-00; A61K038-43
SECONDARY: A61K031-355
BASIC ABSTRACT:
US 20050074447 A1 UPAB: 20051222

NOVELTY - A dietary supplement or topical formulation comprises gamma-tocopherol (A1) and/or its ester.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an aqueous emulsion comprises (weight%): water (80 - 99), emulsifier (0.5 - 15) and dietary supplement (0.5 - 15).

ACTIVITY - Antidiabetic; Nephrotropic; Neuroprotective; Ophthalmological; Antiarteriosclerotic; Cerebroprotective; Cardiovascular-Gen.; Hypotensive; Cardiant; Vasotropic. Retinal endothelial cells were cultured overnight in 96 well culture plates in a humidified incubator at 37degreesC, in the presence of either alpha-tocopherol (50 microM) (control), gamma-tocopherol (50 mM) (test) or combination of alpha-tocopherol (25 microM) and gamma-tocopherol (25 microM). The cells at each condition were cultured for an additional 8 hours in the presence of glucose (25 mM) and palmitate (2 mM). The cell viability of test/control was tested. The test:control showed a viability of 80:40 - 50% and the combination of alpha-tocopherol and gamma-tocopherol showed a cell viability of 90%.

MECHANISM OF ACTION - None given.

USE - For preventing or retarding the progression of diabetic microvascular and macrovascular complications including diabetic retinopathy, diabetic nephropathy and/or diabetic neuropathy, atherosclerosis, cerebrovascular disease, peripheral vascular disease, cardiovascular disease

(claimed), hypertension, coronary artery disease, blindness, kidney failure, peripheral tissue damage, stroke.

ADVANTAGE - The dietary supplement or topical formulation prevents the onset or retards the progression of diabetic microvascular and macrovascular complications. The gamma-tocopherol or its ester ameliorates the severity of diabetes by decreasing insulin resistance (type 2) or increasing insulin secretion (type 1). The therapeutic benefit of gamma-tocopherol against the diabetic microvascular complications is much greater than protection provided by alpha-tocopherol. The combination of gamma-tocopherol and alpha-tocopherol, or gamma-tocopherol, alpha-tocopherol coenzyme Q10 provides a synergistic cytoprotective benefit against diabetic microvascular and macrovascular complications. The daily dose of dietary supplement or formulation containing gamma-tocopherol, alpha-tocopherol and coenzyme Q10 is more therapeutically effective for preventing or retarding the progression of the complication than the formulation of without coenzyme Q10.

MANUAL CODE: CPI: B03-A; B03-F; B03-H; B05-A01B; B05-A03A3; B05-A03A4; B05-A03B; B05-B02C; B07-B03; B10-A06; B10-A22; B10-B02D; B14-E11; B14-F01; B14-F02; B14-F07; B14-J01; B14-N03; B14-N10; B14-N16; B14-N17B; D03-H01T2

TECH

PHARMACEUTICALS - Preferred Composition: The dietary supplement or topical formulation comprises (wt.%): (A1) (30 - 75), and further comprises a high concentration of alpha-tocopherol (20 - 60) and/or its ester, coenzyme Q10 (5 - 15), alpha lipoic acid (0 - 30), acetyl carnitine (0 - 10) and **nutrients** selected from delta-tocotrienol and/or esters, other tocotrienols and/or esters, **beta-carotene**, lutein, zeaxanthin, vitamin C, **zinc**, copper, **selenium**, **n-acetylcysteine** and/or chromium (up to 25). The ratio of gamma-tocopherol to alpha-tocopherol is 10:1 - 0.2:1 (preferably 5:1 - 0.5:1).

L453 ANSWER 64 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-121256 [13] WPIX
CROSS REFERENCE: 2005-011662; 2005-039535
DOC. NO. CPI: C2005-040287 [13]
TITLE: Nutritional composition, useful to e.g. lower blood pressure, comprises a green tea extract, ascorbic acid, lysine, proline, arginine, magnesium, N-acetyl cysteine, selenium, copper and manganese
DERWENT CLASS: B04; B05; D13
INVENTOR: IVANOV V; IVANOVA S; NIEDZWIECKI A; RATH M; ROOMI W M; ROOMI W
PATENT ASSIGNEE: (IVAN-I) IVANOV V; (IVAN-I) IVANOVA S; (NIED-I) NIEDZWIECKI A; (RATH-I) RATH M; (ROOM-I) ROOMI W M
COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20050019429	A1	20050127	(200513)*	EN	16[10]	
WO 2004108127	A1	20041216	(200514)	EN		
NO 2005006193	A	20051227	(200609)	NO		
EP 1628658	A1	20060301	(200617)	EN		A61K031-35
AU 2004245017	A1	20041216	(200637)	EN		A61K031-35
MX 2005012859	A1	20060201	(200643)	ES		
BR 2004010868	A	20060704	(200645)	PT		A61K031-35
KR 2006014067	A	20060214	(200660)	KO		
CN 1798555	A	20060705	(200675)	ZH		A61K031-35

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20050019429	A1 CIP of	US 2003-449828	20030530
US 20050019429	A1	US 2004-855111	20040526
AU 2004245017	A1	AU 2004-245017	20040526
BR 2004010868	A	BR 2004-10868	20040526
EP 1628658	A1	EP 2004-753685	20040526
WO 2004108127	A1	WO 2004-US16902	20040526
EP 1628658	A1	WO 2004-US16902	20040526
MX 2005012859	A1	WO 2004-US16902	20040526
BR 2004010868	A	WO 2004-US16902	20040526
KR 2006014067	A	WO 2004-US16902	20040526
MX 2005012859	A1	MX 2005-12859	20051129
KR 2006014067	A	KR 2005-722975	20051130
NO 2005006193	A	NO 2005-6193	20051227
CN 1798555	A	CN 2004-80015142	20040526

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
EP 1628658	A1	Based on	WO 2004108127	A
AU 2004245017	A1	Based on	WO 2004108127	A
MX 2005012859	A1	Based on	WO 2004108127	A
BR 2004010868	A	Based on	WO 2004108127	A
KR 2006014067	A	Based on	WO 2004108127	A

PRIORITY APPLN. INFO: US 2004-855111 20040526
US 2003-449828 20030530

INT. PATENT CLASSIF.:

MAIN: A61K031-35

IPC ORIGINAL: A61K0031-185 [I,C]; A61K0031-198 [I,A]; A61K0031-341 [I,A]; A61K0031-35 [I,A]; A61K0031-401 [I,A]; A61K0033-04 [I,A]; A61K0033-04 [I,A]; A61K0033-06 [I,A]; A61K0033-32 [I,A]; A61K0033-34 [I,A]; A61K0036-185 [I,C]; A61K0036-185 [I,C]; A61K0036-82 [I,A]; A61K0036-82 [I,A]; A61P0043-00 [I,A]; A61P0009-00 [I,C]; A61P0009-12 [I,A]; A61K0031-35 [I,A]

IPC RECLASSIF.: A23L0001-30 [I,A]; A23L0001-30 [I,C]; A23L0001-304 [I,A]; A23L0001-304 [I,C]; A23L0001-305 [I,A]; A23L0001-305 [I,C]; A61K0031-045 [I,C]; A61K0031-05 [I,A]; A61K0031-185 [I,C]; A61K0031-198 [I,A]; A61K0031-21 [I,C]; A61K0031-221 [I,A]; A61K0031-35 [I,A]; A61K0031-35 [I,C]; A61K0031-352 [I,A]; A61K0031-352 [I,C]; A61K0031-375 [I,A]; A61K0031-375 [I,C]; A61K0031-401 [I,A]; A61K0031-401 [I,C]; A61K0031-7042 [I,C]; A61K0031-7048 [I,A]; A61K0033-04 [I,A]; A61K0033-04 [I,C]; A61K0033-06 [I,A]; A61K0033-06 [I,C]; A61K0033-32 [I,A]; A61K0033-32 [I,C]; A61K0033-34 [I,A]; A61K0033-34 [I,C]; A61K0045-00 [I,C]; A61K0045-06 [I,A]

BASIC ABSTRACT:

US 20050019429 A1 UPAB: 20050708

NOVELTY - Inhibition of smooth muscle cell contraction in human comprises administration of a nutritional composition (I) comprising a green tea extract, ascorbic acid, lysine, proline, arginine, magnesium, N-acetyl cysteine, selenium, copper and manganese.

ACTIVITY - Vasotropic; Hypotensive; Muscular-Gen.

MECHANISM OF ACTION - None given.

USE - Composition (I) is useful to lower blood pressure and to inhibit smooth muscle cell contraction (claimed). (I) minimizes the lack of sensitivity of arteries that lead to hypertension and also provides a potential therapy for (I) that may retard adverse effects of stimuli which lead to contraction of smooth muscles.

The ability of (I) (either alone or in combination with other ingredients e.g. ascorbic acid, EGCG and ascorbic acid+EGCG) to inhibit smooth muscle cell contraction was tested. The results showed that there is a synergistic effect among the various components of (I) to inhibit smooth muscle cell contraction.

ADVANTAGE - Composition (I) is effective without undue side-effects associated with prior art pharmaceutical compounds. (I) has synergistic effect.

MANUAL CODE: CPI: B03-F; B04-A08C; B04-A10; B05-A01B; B05-A03A1; B05-A03A3; B05-B02C; B06-A01; B07-D03; B10-A17; B10-B01B; B10-C04E; B10-E02; B14-E11; B14-F02B; B14-J05A; B14-S09; D03-H01T2

TECH

PHARMACEUTICALS - Preferred Composition: The green tea extract is at least one compound of epicatechin, epicatechin-3-gallate, epigallocatechin (EGCG) or epigallocatechin-3-gallate (preferred).

The ascorbic acid is calcium ascorbate, magnesium ascorbate or ascorbyl palmitate.

Composition (I) comprises green tea extract (500-2000 (preferably 1000) mg), ascorbic acid (400-1500 (preferably 710) mg), lysine (400-1500 (preferably 1000) mg), proline (500-1500 (preferably 750) mg), arginine (200-1000 preferably 500) mg), magnesium (0.5-2 preferably 1) mg), N-acetyl cysteine (10-60 (preferably 30) mg), selenium (10-60 (preferably 30) microg), copper (0.5-5 (preferably 2) mg) and manganese (0.5-2 (preferably 1) mg). (I) further comprises at least one ingredient selected from resveratrol or genistein. (I) is a dosage form of oral liquid dosage form, oral solid dosage, tablet or capsule.

L453 ANSWER 65 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-047352 [05] WPIX
DOC. NO. CPI: C2005-016163 [05]
TITLE: Use of a nutritional supplement including quercetin to prevent or delay the onset of or slow the progression of hypertension and also to treat hypertension and to improve cardiac hypertrophy
DERWENT CLASS: B02; B05; D13
INVENTOR: JALILI T
PATENT ASSIGNEE: (JALI-I) JALILI T
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20040258674	A1	20041223	(200505)*	EN	16[5]	A61K038-43

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20040258674	A1 Provisional	US 2003-461861P	20030410
US 20040258674	A1	US 2004-822568	20040412

PRIORITY APPLN. INFO: US 2004-822568 20040412
US 2003-461861P 20030410
INT. PATENT CLASSIF.:

MAIN: A61K038-43
SECONDARY: A61K031-015; A61K031-353; A61K031-355; A61K031-375; A61K031-405; A61K031-7048; A61K031-714

BASIC ABSTRACT:

US 20040258674 A1 UPAB: 20050707

NOVELTY - Preventing or delaying the onset of or slowing the progression of hypertension in a subject comprises administering a nutritional supplement (A) including quercetin (1) to the subject.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a nutritional supplement (B) useful in aiding preventing, delaying the onset of and/or slowing the progression of hypertension comprising quercetin or a quercetin glycoside (about 0.1-17.5 g/day); and a source of fat, carbohydrate and protein.

ACTIVITY - Hypotensive; Cardiovascular-Gen.

MECHANISM OF ACTION - Protein kinase C inhibitor.

USE - (A) is useful in preventing or delaying the onset of or slowing the progression of hypertension (an agent in the development of left ventricular hypertrophy) (claimed). (A) is also useful to treat hypertension and to improve cardiovascular health. The ability of (A) (having 1.5 g/kg of (1)) to reduce hypertension was assessed in rats. The results showed that (A) effectively decreased systolic blood pressure.

ADVANTAGE - The method is a natural alternative that could decrease blood pressure, which may simultaneously act upon the biochemical pathways that govern cardiac hypertrophy, to significantly reduce cardiac hypertrophy.

MANUAL CODE: CPI: B03-D; B03-E; B03-F; B03-H; B04-B01B; B05-A03; B05-B02C; B06-A01; B07-A02B; B07-D04C; B10-A06; B14-D06C; B14-F02B; D03-H01T2

TECH

PHARMACEUTICALS - Preferred Components: (A) additionally contains other **nutrients** such as vitamins B12, B6, C or E or non-**flavonoid** antioxidants (**selenium**, **vitamin E**, **vitamin C**, niacin, **beta-carotene** and/or **coenzyme Q10**), minerals or trace metals (**zinc**, copper, magnesium, manganese, chromium, molybdenum, iron or calcium) or one or more taste-improving agent, coloring agent, preservative, stabilizer, regulator or emulsifier. The nutritional bar further comprises a dietary fiber such as soluble fiber, insoluble fiber and/or fermentable/non-fermentable fiber. (B) is in the form of a cookie.

Preferred Method: (A) (an energy bar or a beverage (preferably an orange juice)) is administered orally as a liquid or as a nutritional food. The method further comprises determining if a subject is suffering from hypertension or is prone to the development of hypertension.

L453 ANSWER 66 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-342531 [32] WPIX
CROSS REFERENCE: 2002-444056; 2002-599108; 2002-674981; 2003-058603; 2003-140310
DOC. NO. CPI: C2003-089903 [32]
TITLE: Composition useful for treating cancer comprises a combination of 3-hydroxy-3-methylglutaryl-coenzyme-A reductase inhibitor and cyclooxygenase-2 inhibitor
DERWENT CLASS: B05
INVENTOR: GUILFORD F T; GUILFORD T F; KINDNESS G; SCHUMM B
PATENT ASSIGNEE: (GUIL-I) GUILFORD F T; (GUIL-I) GUILFORD T F; (KIND-I) KINDNESS G; (PROB-N) PROBIOCHEM LLC; (SCHU-I) SCHUMM B
COUNTRY COUNT: 95

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003022268	A1	20030320	(200332)*	EN	32[0]	A61K031-35
US 20030162829	A1	20030828	(200357)	EN		A61K031-366
AU 2002245029	A1	20030324	(200461)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003022268	A1	WO 2001-US44050	20011117
US 20030162829	A1 Provisional	US 2000-238504P	20001006
US 20030162829	A1 Provisional	US 2000-249592P	20001117
US 20030162829	A1 Provisional	US 2001-264511P	20010126
US 20030162829	A1 Provisional	US 2001-307689P	20010725
US 20030162829	A1 Div Ex	US 2001-912703	20010725
AU 2002245029	A1	AU 2002-245029	20011117
US 20030162829	A1	US 2003-390517	20030317

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 20030162829 A1	Div ex	US 6534540 B
AU 2002245029 A1	Based on	WO 2003022268 A

PRIORITY APPLN. INFO: US 2001-307689P 20010725
US 2000-249592P 20001117
US 2001-264511P 20010126
US 2001-912703 20010725
US 2000-238504P 20001006
US 2003-390517 20030317

INT. PATENT CLASSIF.:
MAIN: A61K031-35; A61K031-366
SECONDARY: A61K031-198; A61K031-365; A61K031-415

BASIC ABSTRACT:

WO 2003022268 A1 UPAB: 20060119

NOVELTY - Anticancer composition comprises a combination of at least one 3-hydroxy-3-methylglutaryl-coenzyme-A (HMG-CoA) reductase inhibitor, at least one cyclooxygenase-2 (COX-2) inhibitor, at least one carrier and optionally an excipient.

DETAILED DESCRIPTION - Anticancer composition comprises a combination of at lest one HMG-CoA reductase inhibitor (I), COX-2 inhibitor (II), at least one carrier and optionally an excipient. (I) Is a statin selected from lovastatin, simvastatin, pravastatin, compactin, atorvastatin calcium, cerivastatin sodium, fluvastatin sodium and cholestin. (II) Is rofecoxib, celecoxib, etoricoxib, valdecoxib or its flavanolignanes including silymarin, silibinin, silidianin, silicristin, dehydrosilybin and their phospholipid complexes.

An INDEPENDENT CLAIM is also included for the treatment of at least one cell line of cancer involving administering at least a minimum dose of rofecoxib in a carrier.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - None given.

USE - For the treatment of cancer (claimed), especially prostate cancer.

ADVANTAGE - The composition interferes with replication and apparently restoring the immune system capacity to manage cancer. The composition inhibits key biochemical cycles in a way that cause more damage to the cancer cell than to other cells, thus decreases long-term inflammation and improves the body immune system so

it can better attack the weakened cancer cells and supports the body's remaining essential functions.

MANUAL CODE: CPI: B06-A01; B06-A03; B06-D01; B07-A02; B07-D02; B07-D04C; B07-D08; B07-E01; B10-B02E; B10-E04B; B10-E04C; B14-D05C; B14-D05D; B14-H01

TECH

PHARMACEUTICALS - Preferred Composition: The composition additionally comprises lipoic acid, a **dietary** supplement to maintain adequate levels of **vitamin C**, **vitamin E** and **selenium**. The excipient is a **glutathione** pathway enhancing and detoxifying compound. The excipient increases immune function, and has an ability to be a glutathione pathway enhancing and detoxifying compound.

Preferred Components: The glutathione pathway enhancing and detoxifying compound or the excipient is cystine.

Preferred Method: The method further involves administering at least one excipient to increase immune function.

L453 ANSWER 67 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-008508 [01] WPIX

DOC. NO. CPI: C2004-002159 [01]

TITLE: Dietary supplement composition for reducing cancer, has lycopene, vitamin E, selenium, green tea polyphenols, coenzyme, garlic, folic acid, vitamin C, curcumin, seaweed, Cordyceps sinsensis; Lentinus edodes, and ganodermal lucidum

DERWENT CLASS: B05; D13

INVENTOR: BLOCK J B; EVANS S

PATENT ASSIGNEE: (GENE-N) GENETIC SERVICES MANAGEMENT INC

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6630160	B1	20031007	(200401)*	EN	7[0]	A61K009-48

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6630160 B1	Provisional	US 1999-152842P	19990907
US 6630160 B1		US 2000-654802	20000905

PRIORITY APPLN. INFO: US 2000-654802 20000905
US 1999-152842P 19990907

INT. PATENT CLASSIF.:
MAIN: A61K009-48

BASIC ABSTRACT:

US 6630160 B1 UPAB: 20050527

NOVELTY - A dietary supplement composition comprises 2-20 mg lycopene; 50-800 IU vitamin E; 25-400 mcg selenium; 75-600 mg green tea of green tea polyphenols; 3.75-60 mg coenzyme Q10; 50-700 mg garlic; 50-800 mcg folic acid; 60-1000 mg vitamin C; 25-400 mg curcumin; 25-400 mg seaweed; 50-800 mg Cordyceps sinsensis mushroom; 50-800 mg Lentinus edodes mushroom; and 50-800 mg ganodermal lucidum mushroom.

USE - The composition in dried powder form or ingestible form of powder, capsule or tablet (claimed) is used for reducing risk of disease, particularly cancer risk.

ADVANTAGE - The invented composition reduces risk of cancer. MANUAL

CODE: CPI: B03-A; B03-F; B03-H; B04-A08D; B05-B02C; B06-D09; B10-E02; B14-H01; D03-H01T2

L453 ANSWER 68 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-669149 [66] WPIX
DOC. NO. CPI: C2004-239057 [66]
TITLE: Preventing development of soft tissue injuries involves administration of micronutrients e.g. vitamin E, vitamin C, copper, zinc, manganese, selenium, glucosamine sulfate and niacinamide
DERWENT CLASS: B05
INVENTOR: MURRAY J L; STEINBERG G R
PATENT ASSIGNEE: (MURR-I) MURRAY J L; (STEI-I) STEINBERG G R
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
AU 2003100033	A4	20030703	(200466)*	EN	25[0]	A61K031-375

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
AU 2003100033	A4	AU 2003-100033	20030116

PRIORITY APPLN. INFO: AU 2003-100033 20030116
INT. PATENT CLASSIF.:
MAIN: A61K031-375
SECONDARY: A61K031-122; A61K031-30; A61K031-315; A61K031-355; A61P043-00

BASIC ABSTRACT:

AU 2003100033 A4 UPAB: 20051104

NOVELTY - Preventing the development of soft tissues injuries involves administration of at least one **micronutrient** selected from **vitamin E**, **vitamin C**, copper, **zinc**, manganese, **selenium**, glucosamine sulfate, **coenzyme Q10** or niacinamide.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for treating a soft tissues injury involving administration of a micronutrient selected from vitamin C, magnesium and B group vitamin.

ACTIVITY - Vulnerary.

MECHANISM OF ACTION - None given.

USE - Preventing the development of soft tissues injuries in a person who routinely performs repetitive tasks capable of generating cumulated trauma in soft tissues (claimed).

ADVANTAGE - The administration of selected vitamins and minerals enhances recovery following repetitive injuries. The potent combination of vitamins, minerals, glucosamine sulfate and essential fatty acids in the soft tissue nutrition program maximizes the body's ability to combat cellular stresses, manage microtraumas to reduce the likelihood of a repetitive strain injury turning into a debilitating injury requiring time off work and costly professional treatment. Vitamin C supplementation reduces the degradation of intracellular collagen to limit the damaging effects of cumulative trauma; and if injury does occur it increases the synthesis of collagen by stimulating glycosaminoglycan synthesis (cartilage and collagen formation). MANUAL CODE: CPI: B03-F; B03-H; B04-L02; B05-A03A; B05-B02C; B07-D04C; B10-A07; B14-N17B

TECH

PHARMACEUTICALS - Preferred Method: Copper, zinc, manganese, selenium and

coenzyme Q10 are also administered optionally with glucosamine sulfate or niacinamide. Treatment further involves optional administration of at least one of vitamin E, copper, zinc, manganese, selenium, glucosamine sulfate, coenzyme Q10 or niacinamide.

L453 ANSWER 69 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-500303 [53] WPIX
DOC. NO. CPI: C2002-141707 [53]
TITLE: **Nutrient** supplement useful for treating e.g. cancer comprises zinc, **vitamin B6**, pyridoxal-5'-phosphate, **vitamin E**, vitamin A, vitamin C, **selenium**, **glutathione** and taurine
DERWENT CLASS: B05; D13
INVENTOR: USMAN A I; WALSH W J
PATENT ASSIGNEE: (HEAL-N) HEALTH RES INST; (USMA-I) USMAN A I; (WALS-I) WALSH W J
COUNTRY COUNT: 97

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002043507	A2	20020606	(200253)*	EN	60[0]	A23L001-00
AU 2002036527	A	20020611	(200264)	EN		
US 20020155170	A1	20021024	(200273)	EN		A61K038-06
AU 2002236527	A8	20051013	(200611)	EN		A23L001-29

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002043507	A2	WO 2001-US44912	20011130
US 20020155170	A1 Provisional	US 2000-250404P	20001130
US 20020155170	A1	US 2001-998342	20011130
AU 2002036527	A	AU 2002-36527	20011130
AU 2002236527	A8	AU 2002-236527	20011130

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2002036527	A	Based on	WO 2002043507 A
AU 2002236527	A8	Based on	WO 2002043507 A

PRIORITY APPLN. INFO: US 2000-250404P 20001130
US 2001-998342 20011130
INT. PATENT CLASSIF.:
MAIN: A23L001-00; A61K038-06; A23L001-29
SECONDARY: A61K031-198; A61K031-675; A23L001-302; A23L001-305; A61P025-00

BASIC ABSTRACT:

WO 2002043507 A2 UPAB: 20050526

NOVELTY - A **nutrient** supplement (S) comprises zinc (a), vitamin B6 (b), pyridoxal-5'-phosphate (c), **vitamin E** (d), vitamin A (e), vitamin C (f), **selenium** (g), **glutathione** (h) and taurine (i).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for preventing or delaying the onset of autism involving (a) treating with a treatment regimen comprising detoxification by removal of excess of heavy metals, and

(b) treating with a treatment regimen comprising normalization of metal metabolism.

ACTIVITY - Nootropic; Neuroprotective; Antidepressant; Neuroleptic; Tranquilizer; Cytostatic.

A volunteer of age 6 was diagnosed with autism and had responded quite well to a variety of treatments including aggressive zinc therapy, special diets, behavioral therapy and heavy metal chelation. But the patient continued to be quite distant and aloof socially. He was treated with a MTP supplement comprising (weight%) cysteine (25), serine (13.7), lysine (17.85), alanine (8.4), glycine (5.8), threonine (4.3), proline (3.5), aspartic acid (4.25), asparagine (2.75), glutamic acid (6), methionine (3.15), glutamine (2.2), isoleucine (2) and/or valine (1.1) for 10 days. Metal levels were tested before and after 40 days he began the MTP supplement therapy. The results (PPM pre-treatment/PPM post-treatment/(%)reduction) were: mercury = 0.067/0.024/64, antimony = 0.214/0.141/34, arsenic = 0.64/0.31/52, cadmium = 0.77/0.5/35 and lead = 1.46/0.49/66. Thus there was very significant reduction in the level of toxic heavy metals following 40 days of MTP supplement therapy.

MECHANISM OF ACTION - Metallothionein Promoter; Removal of excess metals from bloodstream; In vivo delivery of cysteine.

USE - For treating persons having predisposition to develop autism or having autism; for treating Alzheimer's disease, Wilson's disease, post-partum depression, schizophrenia, hyperactivity, cancer, premature aging or familial amyotrophic lateral sclerosis (claimed). The autism include pervasive development disorders e.g. autistic disorder, Rett's disorder, childhood disintegrative disorder and Asperger's disorder.

ADVANTAGE - (S) increases the amount or activity of at least one metallothionein. The supplement reduces a level of excess of heavy metal to fall within the normal range from the bloodstream. MANUAL CODE: CPI: B03-A; B03-D; B03-F; B03-H; B05-A03A; B05-B01M;
B05-B02C; B07-D03; B10-A09B; B10-B01B; B10-B02D;
B10-B02H; B10-B02J; B14-E11; B14-H01; B14-J01A;
B14-J01A1; B14-J01A4; B14-J01B2; B14-J01B3; B14-J01B4;
B14-S01; D03-H01T2

TECH

PHARMACEUTICALS - Preferred Supplement: The supplement additionally comprises a mixture of amino acids (j) for promoting metallothioneins.
Preferred Composition: (S) comprises (mg) (a) (50 - 150, preferably 75), (b) (150 - 750, preferably 250), (c) (25 - 125, preferably 35), (d) (200 - 400 I.U., preferably 350 I.U.), (e) (1500 - 3500 I.U., preferably 2500 I.U.), (f) (500 - 1000, preferably 750), (g) (5 - 25, preferably 10), (h) (100 - 200 or 175 - 350, preferably 150 or 275), (i) (50 - 150, preferably 100) and (j) (150 - 250 or 100 - 200).
ORGANIC CHEMISTRY - Preferred Components: (j) comprises (mg) cysteine (37.5 - 62.5, preferably 50), serine (20.5 - 34.4, preferably 27.4), lysine (26.8 - 44.6, preferably 35.7), alanine (12.6 - 21, preferably 16.8), glycine (8.7 - 14.5, preferably 11.6), threonine (6.45 - 10.8, preferably 8.6), proline (5.25 - 8.75, preferably 7), aspartic acid (6.38 - 10.6, preferably 8.5), asparagine (4.13 - 6.88, preferably 5.5), glutamic acid (9 - 15, preferably 12), methionine (4.73 - 7.88, preferably 6.3), glutamine (3.3 - 5.5, preferably 4.4), isoleucine (3 - 5, preferably 4) or valine (1.65 - 2.75, preferably 2.2).
Preferred Method: The detoxification is done by administration of a nutrient supplement comprising (a), (b), (c), (d), (e), and (f). The normalization is done by administration of (S).

L453 ANSWER 70 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-415383 [44] WPIX
DOC. NO. CPI: C2002-117233 [44]
DOC. NO. NON-CPI: N2002-326759 [44]
TITLE: Composition useful in the treatment of obesity comprises

at least one micronutrient and target absorbent compound

DERWENT CLASS: B04; D13; J04; S03

INVENTOR: BUCHANAN-BAILLIE-HAMILTON P F; PECK J C

PATENT ASSIGNEE: (BUCH-I) BUCHANAN-BAILLIE-HAMILTON P F

COUNTRY COUNT: 94

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002012882	A2	20020214	(200244)*	EN	86[9]	G01N033-487
AU 2001076537	A	20020218	(200244)	EN		
GB 2370504	A	20020703	(200251)	EN		A61K049-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002012882	A2	WO 2001-GB3554	20010807
GB 2370504	A	GB 2001-17052	20010712
AU 2001076537	A	AU 2001-76537	20010807

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001076537	A	Based on	WO 2002012882 A

PRIORITY APPLN. INFO: GB 2001-17052 20010712
GB 2000-19327 20000808

INT. PATENT CLASSIF.:
MAIN: A61K049-00; G01N033-487
SECONDARY: A61P003-04

BASIC ABSTRACT:

WO 2002012882 A2 UPAB: 20050526

NOVELTY - A composition comprises at least one active compound e.g. micronutrient or target compound absorbent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: 1) a method for comparing the relative inhibitory effects of several of target compounds (A1)/items on the ability of a test subject (A2)/(A2) exposed to the items to control their weight involving performing the method for each (A1)/item, and comparing the inhibitory effects of each (A1)/item; 2) a method for labeling and/or certifying an item according to its inhibitory effect on the ability of (A2) exposed to the item to control their weight involving performing the method for the item, and labeling and/or certifying the item based on a pre-determined scale according to their inhibitory effect; 3) a method of diagnosis and/or prognosis of a weight-control-related disorder or disease in (A2) involving performing a method and correlating the results obtained from the method with the disease state of the subject; 4) determining a test subject's progress in altering the extent to which their ability to control their weight has been inhibited involving performing the method at intervals, and comparing the results obtained from the method to establish the progress made; 5) production of a tailored advice plan for (A2) involving performing a method and providing a plan in accordance with the results obtained from the method. The plan provides a system for improving or maintaining the ability of (A2) to control their weight; 6) determining the extent of the inhibitory effect of (A1) on the ability of (A2) into whom (A1) is introduced to control their weight involving (i) determining the degree or severity by which (A1) affects each of several weight controlling systems (HICS) present in (A2); (ii) determining the persistence

of (A1) in (A2); (iii) calculating the inhibitory effect as a function of values of (i) and (ii); 7) Use of the composition in the preparation of a medicament for the treatment of obesity; 8) production of a database of the inhibitory effects of several (A1)/items on the ability of (A2)/(A2) exposed to the items to control their weight involving performing the method for each (A1)/items, and combining the results into a database; 9) computer system for use in the performance of a method or displaying the output of the method, or displaying or accessing the database, comprising (a) a standard electronic computer circuit containing at least a random access memory, a read only memory, a processor; (b) a keyboard comprising several standard keyboard buttons; and (c) a display; 11) production of a labeled and/or certified item, involving providing the item to be labeled and/or certified, and performing the method on the item; 12) a database produced by the method; 13) a data carrier comprising the database; 14) determining the inhibitory effect of an item on the ability of (A2) exposed to the item to control their weight involving: a1) optionally determining the amount of each of several (A1) in the item having an inhibitory effect on the ability of (A2) to control their weight; and 15) a system for improving or maintaining the ability of (A2) to control their weight including (a) a commodity provider, which provides commodities for (A2), (b) a certifier which certifies each commodity according to its inhibitory effect on the ability of (A2) exposed to the item to control their weight such that the subject can select each commodity to its certification. The certifier optionally uses an analyzer for determining the presence of (A1) in each commodity and a database of the inhibitory effect of (A1) present in the commodity on the ability of (A2) to control their weight.

ACTIVITY - Anorectic; Cardiant; Antiasthmatic; Antiallergic; Cytostatic; Dermatological; Immunosuppressive.

MECHANISM OF ACTION - Inhibitor.

USE - For cosmetic improvement of the subject, which does not suffer from obesity; for treatment of the subject suffering from obesity; for use in a method for treatment of obesity; for controlling the weight of the subject; in the preparation of the medicament for the treatment of obesity (all claimed); for the control and treatment of various conditions associated with obesity e.g. immune dysfunction, autoimmunity, cardiovascular disorder, pulmonary disorder (e.g. asthma), allergies, cancer, mood changes, neurological illness, changes in libido, hormonal disorders, reproductive dysfunction, congenital abnormalities, metabolic disorder (e.g. glucose dysregulation), muscular skeletal disorder, renal and genitourinary disorder and skin disorder.

ADVANTAGE - The composition achieves significantly more effective and long lasting weight reduction without the use of drugs which interferes with the body's natural metabolism, by means of effectively restoring the body's own natural slimming system in a substantially natural manner.

MANUAL CODE: CPI: B03-L; B04-A10; B06-D01; B07-D08; B10-B02; B10-C04E; B10-E04B; B14-D01; B14-E12; B14-F02B; B14-G01; B14-G02; B14-H01; B14-J01A4; B14-J01B3; B14-K01; B14-K01A; B14-N01; B14-N12; B14-N17; B14-S04; D03-H01T; J04-B01
EPI: S03-E14H

TECH

ORGANIC CHEMISTRY - Preferred Composition: The composition comprises micronutrients selected from methionine, glutathione, tyrosine, tryptophan or L-5 hydroxytryptophan. The composition further comprises at least one **micro-nutrient** selected from vitamin, mineral or fatty acid (preferably vitamin A, B1, B2, B6, magnesium, zinc; **vitamin C**, E, vitamin B3, B12, magnesium, **zinc**; iron or OMEGA-3-acid; **coenzyme Q10**, vitamin B5, iodine, choline, folic acid, biotin, bethaine, inositol, vitamin D, lipoic acid, phosphatidyl choline, calcium, organic sulfur, copper, chromium, selenium, manganese, vanadium, molybdenum, boron, PABA (para-aminobenzoic acid), vitamin K or silicon). The composition further comprises at least one

amino acid (I), essential fatty acids (II), phytonutrients (III), herbal detoxification remedies (IV), hormone balancing herbs, alkalizing substances or enzymes (V). (I) is isoleucine, leucine, valine, lysine, phenylalanine, threonine, ethanolamine, glycine, serine, glutamine, glutamic acid, aspartic acid, arginine, histidine, alpha-ketoglutaric acid, alanine, asparagine, proline, carnitine, butyric acid or butyrate. (II) is an OMEGA-6 essential fatty acid. (I) or (II) is anthocynanidins, cysteine, or taurine. (III) is bioflavonoid, curcumin, catechin, lycopene, lutein, zeanxanthin, allium compound, capsaicin, coumarin, chlorophyll, ellagic acid, sulphoraphane, isothiocyanate, anthocyanin, proanthocyanin, phenolic acid, quercitin, monoterpene, liminoid, terepene, indole, allyl sulfide, carotenoid or saponin. The target compound is ion exchange resin, mineral oil, chelating agent, squalene or squalane. The absorbent is present in at least two discrete dosage units in the composition of matter. The composition is a dietary supplement. The composition includes an alkalization supplement to adjust the pH balance in the body of (A2). (A1) is a xenobiotic chemical selected organic solvent (preferably carbamate, phthalate, chlorinated hydrocarbon solvent, aromatic hydrocarbons solvent, dioxin, aliphatic, or alicyclic solvent). Preferred Compound: (A1) is PCBs (2,4,5,2',3',6'-hexa; 2,4,5,2',4',6'-hexa; 2,4,5,2',3',6'-hexa; 2,3,4,5,2',4',5'-hepta; 2,3,4,6,2',3',4'-hepta; 2,3,4,5,3',4',5'-hepta; 2,3,5,6,3',4',5'-hepta) ; PBBs (2,4,5,3',4'-penta; 2,4,5,2',4',5'-hexa; 2,3,4,2',4',5'-hexa; 2,4,5,3',4',5'-hexa; 2,3,5,2',4',5',6'-hepta); organochlorine Pesticides (DDT; DDE; HCB; Oxychlordane; trans-Nonachlor; beta-BHC (lindane); Heptachlor epoxide; (Dieldrin); heavy metals (lead; cadmium). (A1) is one to which (A2) may be exposed through ingestion or other uptake from the environment or its metabolite. A1 is xenobiotic chemical selected from polychlorinated biphenyl or polybrominated biphenyl. Preferred Dosage: The dosage for any of the following components present in the composition is within the following ranges of preferred minimum dose (A)/desirable minimum dose (B)/preferred upper limit(C): Micronutrient vitamin A = 3,000/10,000/25,000 IU; vitamin B1 = 10/50/500 mg; vitamin B2 = 10/50/300 mg; Vitamin B3 = 20/50/400 mg; vitamin B5 = 20/50/1,000 mg; vitamin B6 = 20/100/500 mg; vitamin B12 = 20/100/1,000 mcg; Folic acid = 200/400/1,000 mcg; Choline = 100/300/1,000 mg; vitamin C = 500/3,000/20,000 mg; vitamin E = 100/400/1,400 IU; co-enzyme Q10 = 20/40/1,000 mg; magnesium = 200/400/2,000 mg; zinc = 10/20/200 mg; iron = 5/20/200 mg; non-citrus anthocyanidin complex (bilberry extract) = 20/25/1000 mg; tryptophan or L-5 = 50/200/4000 mg; hydroxytryptophan = 50/100/300 mg; tyrosine = 200/500/3000 mg; methionine = 100/500/3000 mg; cysteine = 100/500/4000 mg; taurine = 100/300/4000 mg; glutathione = 150/500/4000 mg; OMEGA-3 fatty acids (from linseed oil) = 4/20/150 g. Absorbent (A/B/C) activated charcoal = 500 mg/2 g/20 g; soluble fiber (e.g. pectin) = 1/3/30 g; clay (e.g. bentonite) = 1/5/30 g. The components are present at the desirable minimum dose, or a dosage of about 100 - 600 (preferably 100 - 300, especially 200)% of the desirable minimum dose. The composition comprises the following dosage unit preparations A-F: Preparation A: Component vitamin A = 2,667 IU; beta-carotene = 3,333 IU; vitamin B1 = 32 mg; vitamin B2 = 25 mg; vitamin B3 = 100 mg; vitamin B5 = 60 mg; vitamin B6 = 30 mg; vitamin B12 = 100 mcg; Vitamin C = 260 mg; vitamin D = 400 IU; vitamin E = 100 IU; folic acid = 400 mcg; calcium = 120 mg; zinc = 15 mg; magnesium = 17 mg; iron = 7 mg; PABA = 25 mg; choline bitartrate = 60 mg; inositol = 25 mg; silica = 25 mg; boron = 20 mg; phytase enzyme = 5 mg; lutein = 5 mg; manganese ascorbate = 2.5 mg; chromium = 200 mcg; molybdenum ascorbate = 500 mcg; biotin = 400 mcg; L-selenomethionine = 200 mcg; iodine = 150 mcg; bilberry extract = 50 mg; Preparation B: component Vitamin C = 2000 mg; Preparation C: Component magnesium = 200 mg; Preparation D: Component co-enzyme Q10 = 30 mg; Preparation E: Component Vitamin E = 400 IU; Preparation F: Component Vitamin B6 = 20 mg. The

composition comprises the following dosage unit preparations A-C in conjunction with alkalizing mineral mixtures. (A) Amino acid supplement tablet (mg): methionine = 250; taurine = 200; cysteine = 500; tyrosine = 500; L-5 hydroxytryptophan = 100; glutathione = 300. (B) Liver Support supplement tablet (mg): choline = 250; silymarine extract (Milk Thistle) = 100; inositol = 100; sodium sulfate = 100; lipase = 50; alpha lipoic acid = 10; green tea extract = 5; biotin = 50 mcg; (C) Essential fats (g) linseed oil = 10, sunflower oil = 2. Preferred Method: The determination for (A1) made in steps (i) and/or (ii) is based on results obtained for a second compound containing same active moiety as (A1). The determination for (A2) in steps (i) and/or (ii) is based on results obtained for at least one representative member of population or sub-population to which (A2) belongs or is based on results obtained for a second subject which is different species to (A2). The method includes the step of weighting the results from the second subject in accordance with its physiological proximity to the first subject. The determination made in step (i) and/or (ii) is not contemporary with the calculation at (iii). The determination made in step (i) and/or (ii) is given a statistical measure of relevance based on the number of studies or trials used to support the determination. The statistical measure of relevance is obtained from a data quality index chart. The determination made in step (ii) is a longevity index, which is equal to the square root of the half-life of (A1) in the body of (A2) in hours. The persistence is obtained from a longevity indices conversion chart. The determination made in step (i) assessed for at least 2 or 3 of the following WCS: hormonal system; metabolism; muscular activity. At least one of the following WCS is assessed: noradrenaline, adrenaline, dopamine, serotonin, GABA, thermoregulation, brown fat metabolism, thyroid hormone, testosterone, oestrogen, progesterone, leutinizing hormone (LH) and follicle stimulating hormone (FSH), prolactin, cortisol, insulin, growth hormone and leptin, ATPase, carbohydrate metabolism, lipid metabolism, muscle tissue, protein synthesis, increased food intake, increased percentage of body fat, significant weight gain. The effect on each WCS is scored on a scale of 0 to 10. The determination made in step (i) is given weighting according to the significance of each WCS to the test subject's ability to control their weight. The total for each WCS determined at (i) is multiplied by the value determined at (ii) to provide the inhibitory effect of (A1). The inhibitory effect on an average weight (A2) is assessed per unit mass of (A1). The method for determining the inhibitory effect of the item involves: a2) determining the inhibitory effect of each (A1); a3) determining the degree to which exposure of (A2) to the item results in introduction into (A2) of each of several (A1) in the item, and a4) calculating the inhibitory effect of the item as a function of values of the above steps. Prior to performing the method for comparing the relative inhibitory effects of (A1), the item is categorized into categories based on the nature of (A1) which is present in each of the categories e.g. foodstuff, skin-care product, air sample, item of furniture, material for food packaging. Prior to step a1) the item is categorized into pre-determined elements based on the nature of (A1) present in each of the elements. The item is analyzed only for those (A1) which is present, based on historical analyses. The sensitivity with which the amount, of each of the several (A1) in the item, is determined is varied according to the inhibitory effect of (A1) whereby higher sensitivity is applied for more inhibitory (A1). The function in step a4) is given by the totality for each (A1) of the value determined at (a1) multiplied by the value determined at (a2) factored by the value determined at (a3) such as to provide the total inhibitory effect of the item. The method is for establishing that the inhibitory effect of the item does not exceed a minimum threshold. The method involves further step of categorizing or banding the items based on a pre-determined scale of inhibitory effect.

The pre-determined scale is very low, low, medium, high, very high. The labeling and/or certifying is performed by incorporating information conveying the inhibitory effect into the item, its packaging, or ancillary materials associated with them. The inhibitory effect is determined for a representative item selected from a batch of items. The method for determining the extent to which (A2) has had their ability to control their weight inhibited, involves determining the amount of each of several of (A1) in (A2). The method further involves determining inhibitory effect of each (A1) present and calculating the inhibitory effect of the item as a function of values of (a1), (a2). The value for step (I) is determined from a biopsy sample removed from the test subject. The function in step (III) is given by the totality for each (A1) of the value determined at (a1) multiplied by the value determined at (a2).

BIOLOGY - Preferred Components: (IV) is milk thistle, burdock, red clover, fenugreek, echinacea, yellow dock, dandelion root, ginkgo biloba, blessed thistle, ginger root, sarsaparilla root, plantain leaf, saw palmetto berry, corn silk, fructo-oligosaccharide, garcinia cambogia, oligosaccharide, flax meal, elecampane root, schisandra berry, elderberry, clove, cat's claw, black walnut hull, goldenseal root, barley bran, wheat bran, tumeric, aloe vera, hibiscus, echinacea, fenugreek, dong quai, astragalus root, micro algae, melatonin, pinus maritima, kelp, slippery elm, sorrel, marshmallow root, fennel seed, barberry rootbark, senna, curacao, cascara sagrada, green tea, African bird pepper, cayenne and probiotics, licorice root, ginseng, isoflavone, genistein, chaste tree berry, triphala, black cohosh, wild yam, saw palmetto or damiana.

BIOTECHNOLOGY - Preferred Components: (V) is lipase, protease, amylase, phytase, trypsin, chymotrypsin, lactase, catalase, superoxidase dismutase or glutathione peroxidase.

INORGANIC CHEMISTRY - Preferred Composition: The composition comprises at least one target compound absorbent selected from charcoal, locust bean gum, oat bran and/or oat gum, konjac mannan, pectin, guar gum, acacia gum, rice bran, clay optionally selected from bentonite, kaolin or Fuller's earth.

POLYMERS - The target compound is soluble fiber optionally selected from psyllium, sucrose polyester, chitin or other polyglusam.

AGRICULTURE - Preferred Components: (A1) is a xenobiotic chemical selected from pesticide, environmental pollutant or heavy metal (preferably A1 is a xenobiotic chemical selected from organochlorine insecticide or organophosphate insecticide).

INSTRUMENTATION AND TESTING - Preferred System: The system optionally further includes (c) an advisor which advises the individual on selection of each commodity according to its inhibitory effect on the ability of (A2) exposed to the item to control their weight. The advisor optionally uses an analyzer which determines the presence of (A1) in (A2); (d) a commodity provider, provides compositions for reducing the level of (A1) in (A2); (e) a certifier which certifies the composition according to their ability to reduce the level of (A1) in (A2).

FOOD - Preferred Foodstuff: The item is foodstuff categorized into following elements e.g. integral packaging; non-ingestible portions or types of ingestible material. The inhibitory effect is declared for 100 g or 100 ml of the foodstuff and/or a typical portion of the foodstuff. The item is packaging for food, its inhibitory effect is assessed by comparing the inhibitory effect of the foodstuff packaged in the item with an equivalent unpackaged foodstuff.

L453 ANSWER 71 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-105552 [14] WPIX
CROSS REFERENCE: 1998-557054; 2001-373633
DOC. NO. CPI: C2002-032352 [14]
TITLE: Nutritional supplement useful for the treatment of e.g.

heart disease comprises L-carnitine, Coenzyme Q10 (Ubiquinone) and taurine or precursor

DERWENT CLASS: B05

INVENTOR: JEEJEEBHOY K N; SOLE M J

PATENT ASSIGNEE: (JEEJ-I) JEEJEEBHOY K N; (SOLE-I) SOLE M J

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20010041741	A1	20011115	(200214)*	EN	29[6]	A61K031-205

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20010041741	A1 CIP of	US 1997-826234	19970327
US 20010041741	A1 CIP of	US 1998-2765	19980106
US 20010041741	A1 Cont of	US 1999-414689	19991007
US 20010041741	A1	US 2001-854831	20010514

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 20010041741 A1	CIP of	US 6080788 A
US 20010041741 A1	Cont of	US 6232346 A

PRIORITY APPLN. INFO: US 2001-854831 20010514
US 1997-826234 19970327
US 1998-2765 19980106
US 1999-414689 19991007

INT. PATENT CLASSIF.:
MAIN: A61K031-205
SECONDARY: A61K031-185

BASIC ABSTRACT:

US 20010041741 A1 UPAB: 20050524

NOVELTY - Nutritional supplement comprises L-carnitine, Coenzyme Q10 (Ubiquinone) or their functional analogs and taurine or its precursor.

ACTIVITY - Cardiant; Anti-HIV; Cytostatic; Immunomodulator; Antibacterial; Immunosuppressive; Nephrotropic; Respiratory; Immunostimulant; Muscular.

MECHANISM OF ACTION - None given.

USE - For treating a disease, disorder or abnormal physical state consisting of heart disease and functional deterioration associated with ageing or increasing neuromuscular or athletic performance in mammals such as dogs, cats and preferably humans (claimed). Also useful in treatment of chronic degenerative disease, immune diseases such as AIDS, chronic multisystem disease, chronic lung or renal disease, chronic fatigue syndrome, patients on immunosuppressive drug post- transplantation, cancer patients on doxorubicin or related drugs, wasting or cachexia from cancer or sepsis.

ADVANTAGE - The composition potentiates the action of each component on cell function and energetics. The composition provides a more reliable and effective treatment to various diseases. The composition also corrects abnormalities in myocardial energetics, intracellular calcium and oxidative stress. The composition maintains and restores mitochondrial function and prevents cardiac failure and aids recovery from cardiac disease.

MANUAL CODE: CPI: B03-F; B03-H; B05-B02C; B07-D12; B07-F01; B10-A06; B10-A09B; B10-A17; B10-A22; B10-B02D; B14-E11; B14-F01;

B14-G01; B14-G01B; B14-H01; B14-J01A; B14-J05; B14-K01; B14-N10

L453 ANSWER 72 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-033222 [04] WPIX
DOC. NO. CPI: C2002-009227 [04]
TITLE: Use of a composition containing L-glutathione and a source of selenium in a topical carrier for treating cutaneous infection and resulting inflammation in nonhuman animals
DERWENT CLASS: B05; C03
INVENTOR: HERSH T
PATENT ASSIGNEE: (THIO-N) THIONE INT INC
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6303651	B1	20011016	(200204)*	EN	6[0]	A61K031-197

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6303651 B1		US 1999-404050	19990923

PRIORITY APPLN. INFO: US 1999-404050 19990923
INT. PATENT CLASSIF.:
MAIN: A61K031-197
SECONDARY: A61K031-28; A61K031-315; A61K033-24; A61K033-30
BASIC ABSTRACT:
US 6303651 B1 UPAB: 20050524

NOVELTY - Treating cutaneous infection and resulting inflammation in nonhuman animals by topically administering a composition containing L-glutathione and a source of selenium in a topical carrier.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a composition containing L-glutathione, selenium and an insecticide in a topical carrier.

ACTIVITY - Antioxidant; Antipruritic; Anti-inflammatory; Dermatological.

MECHANISM OF ACTION - Free radical reduction enhancer; Toxic peroxidase inhibitor; Reactive aldehyde inhibitor.

USE - For treating cutaneous infection and resulting inflammation in nonhuman animals; particularly for treating pruritus and inflammation resulting from flea bites and mites bites in animals; (claimed) in canine, feline and equine. The inflammation in includes eczema, hot spots, mange and related dermatological conditions.

ADVANTAGE - The composition act synergistically, scavenges and neutralizes reactive oxygen species and other free radicals generated in the cutaneous inflammatory reactions being responsible for the animals' clinical symptom and cutaneous lesions, and protects cells from the ravage of free radicals working synergistically with the antioxidant enzymes and the **dietary** vitamin antioxidants thus helping in the skin repair processes. The reduced glutathione (GSH) with **selenium** co-factor for **glutathione** peroxidases eliminates toxic peroxides; **GSH** reduces oxidized form of **vitamin C** which in turn maintain **vitamin E** in its reduced form prompting its metabolic functions. Thus GSH supports the free radical reductions and free radical chain-terminating function of the two nutrient antioxidants, vitamin C and E. GSH also functions through glutathione S-transferases to detoxify reactive aldehyde created during the process of lipid

peroxidation in the tissues of canine with hot spots and other dermatoses. MANUAL CODE: CPI: B03-F; B03-H; B05-B01D; B07-D04A; B10-B02D; B14-C03; B14-D03; B14-N17; C03-F; C03-H; C05-B01D; C07-D04A; C10-B02D; C14-C03; C14-D03; C14-N17

TECH

ORGANIC CHEMISTRY - Preferred Components: The composition further comprises an N-acetyl-L-cysteine, superoxide dismutase, zinc salt (preferably zinc pyrithione), and vitamin C and E. The selenium is a selenoamino acid (preferably selenomethionine or selenocysteine). Preferred Composition: The composition comprises (wt.%): L-glutathione (0.001 - 15, preferably 0.01 - 10, especially 0.1 - 5) wt.%.

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ACCESSION NUMBER: 2001-373633 [39] WPIX

CROSS REFERENCE: 1998-557054; 2002-105552

DOC. NO. CPI: C2001-114072 [39]

TITLE: Medical composition useful for treating heart disease comprises nutritional combination of L-Carnitine, Coenzyme Q10 (ubiquinone) and Taurine or a Taurine precursor

DERWENT CLASS: B05; C03

INVENTOR: JEEJEEBHOY K N; SOLE M J

PATENT ASSIGNEE: (JEEJ-I) JEEJEEBHOY K N; (SOLE-I) SOLE M J

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6232346	B1	20010515	(200139)*	EN	22[6]	A61K031-195

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6232346	B1 CIP of	US 1997-826234	19970327
US 6232346	B1 CIP of	US 1998-2765	19980106
US 6232346	B1	US 1999-414689	19991007

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 6232346 B1	CIP of	US 6080788 A

PRIORITY APPLN. INFO: US 1999-414689 19991007
US 1997-826234 19970327
US 1998-2765 19980106

INT. PATENT CLASSIF.:
MAIN: A61K031-195

BASIC ABSTRACT:

US 6232346 B1 UPAB: 20050525

NOVELTY - Method of medical treatment of a heart disease, disorder or abnormal physical state in mammal involves administering a carrier (A) and a nutritional supplement (B) containing L-Carnitine, Coenzyme Q10 (ubiquinone) or their functional analog and Taurine or a Taurine precursor in a single or divided daily dose.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of increasing neuromuscular or athletic performance in a mammal involving administering to the mammal (A) and (B).

ACTIVITY - Cardiant; Cerebroprotective; Anti-HIV; Immunosuppressive; Antiinflammatory.

MECHANISM OF ACTION - None given.

USE - For treating disease, disorder or abnormal physical state such as heart disease and functional deterioration associated with ageing such as heart failure in mammal e.g. human, dog, cat and horse (preferably a human) (claimed). For treating diseases such as neurogenerative disease, immune disease, stroke, AIDS, chronic multisystem disease, respiratory muscle fatigue such as chronic obstructive lung disease, lung or renal disease, chronic fatigue syndrome, patients on immunosuppressive drugs, cancer, patients treated with such drugs such as doxorubicin, wasting, cachexia from cancer or sepsis.

ADVANTAGE - The composition corrects the abnormality in mitochondrial energetics in cardiac failure and certain other diseases. The nutritional supplement helps to correct or prevent the cascading series of metabolic abnormalities responsible for cardiac disease but will have similar effect on neuromuscular, central nervous and immune system dysfunction in a wide variety of diseases. The nutritional supplement of the invention restores and improves function at many points in cell metabolism, prevents and corrects myocardial dysfunction. The formulation ensures a high quality protein to optimize muscle function to allow the nutrients in combination to synergistically interact for the benefit of the patient. The supplement also benefits patients with or without heart failure with other conditions in which cellular nutrition, mitochondrial energetics and function are impaired or less than desired and oxidative stress is increased for musculoskeletal, immune and disorders of the central nervous system. MANUAL CODE: CPI: B10-A06; B10-A09B; B10-B02H; B14-A02; B14-F01B; B14-G02D; B14-H01; B14-J01; B14-K01; B14-N10; C10-A06; C10-A09B; C10-B02H; C14-A02; C14-F01B; C14-G02D; C14-H01; C14-J01; C14-K01; C14-N10

L453 ANSWER 74 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-523729 [58] WPIX
DOC. NO. CPI: C2001-156483 [58]
TITLE: Antioxidant preparation used as **food** supplement contains propyl gallate and e.g. **vitamins E** and C, carotene, carotinoid, liponic acid, **selenium** compound, cysteine, **N-acetyl-cysteine**, anthocyanine and acyl-carnitine
DERWENT CLASS: D13; E19
PATENT ASSIGNEE: (BIEG-I) BIEGER W P; (VILL-I) VILLEPONTEAU B
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 20104419	U1	20010816	(200158)*	DE	11[0]	A23L001-29

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 20104419 U1		DE 2001-20104419	20010308

PRIORITY APPLN. INFO: DE 2001-20104419 20010308
INT. PATENT CLASSIF.:
MAIN: A23L001-29
SECONDARY: C09K015-04
BASIC ABSTRACT:

DE 20104419 U1 UPAB: 20050526

NOVELTY - Antioxidant preparation as food supplement consists of vitamin E, vitamin C, E 160a-g (carotene and carotinoids), thioctoic acid (liponic acid, (R)-5-(1,2-dithiolan-3-yl)-pentanoic acid), selenium compound, cysteine, NAC (N-acetyl-cysteine), E 163 (anthocyanine) and acyl-carnitine in addition to E 310 (propyl gallate).

USE - The product is a food supplement.

ADVANTAGE - The supplement consists entirely of natural substances, which are sold openly, i.e. not medicaments. They are based on n-propyl gallate, which is an effective antioxidant and may be mixed with other antioxidants to give specific effects and a wider spectrum of application.

MANUAL CODE: CPI: D03-H01P; E05-B01; E05-K; E07-B03; E10-B02D; E10-C04D2; E10-E02D; E10-J02A2; E31-G

TECH

ORGANIC CHEMISTRY - Preferred Components: In addition to propyl gallate, the preparation contains tocopherol, vitamin C, carotene, carotinoids, liponic acid, cysteine, N-acetylcysteine (NAC, selenium compounds, anthocyanine, anthocyanidine and acyl-carnitines. It especially contains propyl gallate and acetyl-carnitine and also vitamins, carotene, liponic acid, cysteine, selenium compounds and/or anthocyanidine. Antioxidant combinations of acyl-carnitine and alpha-liponic acid are especially suitable.

Preferred Composition: The preparation contains 1-10 mg NPG (n-propyl gallate) and 1-500 mg vitamin C, 1-60 mg vitamin E, 1-20 mg carotinoids, 10-400 mg alpha-liponic acid and grape seed extract equivalent, 20-100 mug selenium compound, 0-100 g anthocyanidine, 10-100 mg acetyl-carnitine and cysteine and N-acetyl-cysteine.

L453 ANSWER 75 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-091319 [10] WPIX
DOC. NO. CPI: C2001-026872 [10]
TITLE: New **nutrient** combination for maintaining the oxidative balance comprises **vitamin E**, C, **selenium**, **N-acetyl-l-cysteine**, curcumin, mixed polyphenols and mixed carotenoids is used in the treatment for example of diabetes and CNS disorders
DERWENT CLASS: B05
INVENTOR: BARKER A D; BARKER A D B N I; DAY R W; DAY R W F H C R C; DENNIS A J; DENNIS A J N L I; FARNSWORTH N R; FARNSWORTH N R O I A C; HAACK J A; HAACK J A N L I; MCCORD J M; MCCORD J M O C H C; POTTER J D; POTTER J D F H C R C
PATENT ASSIGNEE: (NUTR-N) NUTRI LOGICS; (NUTR-N) NUTRI-LOGICS INC
COUNTRY COUNT: 83

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000076492	A1	20001221	(200110)*	EN	121[0]	A61K031-04
AU 2000057472	A	20010102	(200121)	EN		
EP 1200075	A1	20020502	(200236)	EN		A61K031-04
KR 2002016833	A	20020306	(200261)	KO		A61K031-195
AU 768189	B	20031204	(200382)	EN		
US 6646013	B1	20031111	(200382)	EN		A61K031-05

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000076492 A1	WO 2000-US16777 20000615
US 6646013 B1 Provisional	US 1999-139347P 19990615
AU 2000057472 A	AU 2000-57472 20000615
AU 768189 B	AU 2000-57472 20000615
EP 1200075 A1	EP 2000-942920 20000615
US 6646013 B1	US 2000-596036 20000615
EP 1200075 A1	WO 2000-US16777 20000615
KR 2002016833 A	KR 2001-716085 20011214

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 768189 B	Previous Publ	AU 2000057472 A
AU 2000057472 A	Based on	WO 2000076492 A
EP 1200075 A1	Based on	WO 2000076492 A
AU 768189 B	Based on	WO 2000076492 A

PRIORITY APPLN. INFO: US 1999-139347P 19990615
US 2000-596036 20000615

INT. PATENT CLASSIF.:

MAIN: A61K031-04; A61K031-05; A61K031-195

SECONDARY: A61K031-06; A61K031-07; A61K031-075; A61K031-12; A61K031-34; A61K031-355; A61K031-435; A61K031-495; A61K031-50; A61K031-505; A61K031-59; A61K031-675; A61K031-70

BASIC ABSTRACT:

WO 2000076492 A1 UPAB: 20060116

NOVELTY - A combination of **nutrients** used in maintaining the oxidative balance comprising **vitamin E**, **vitamin C**, **selenium**, **N-acetyl-l-cysteine**, curcumin, mixed polyphenols and mixed carotenoids is new.

DETAILED DESCRIPTION - A combination (I) of **nutrients** used in maintaining the oxidative balance comprising specified amounts of **vitamin E** (50-500 IU), **vitamin C** (60-500 mg), **selenium** (20-3000 mcg), **N-acetyl -l-cysteine** (500-2000 mg), curcumin (5-50 mg), mixed polyphenols (500-15000 mg, green tea extract, standardized to at least 60% polyphenols) and mixed carotenoids (500-2000 mg, mixed vegetable extract, equivalent to 5 vegetable servings) is new.

INDEPENDANT CLAIMS are included for:

(1) a combination of nutrients (II) useful in reducing colorectal cancer risk comprising salicin (20-200 mg), curcumin (5-50 mg), calcium (200-2500 mg), vitamin D (100-1000 IU), folic acid (200-1000 mcg), vitamin B6 (0.5-10 mg), and vitamin B12 (0.1-100 mcg);

(2) a bidirectional, multi-tiered method of screening active components for inclusion in a nutrient formulation for reducing disease risk, comprising (a) examining ecologic and/or individual based epidemiological data to establish patterns of association between diet, foods and the disease, (b) identifying active compounds from foods or diets that are associated with delaying the onset of, or preventing or inhibiting the disease and (c) determining based on mechanism(s) of action of the active compounds in disease pathways associated with delaying the onset of or inhibiting the disease, a subset of the active compounds to be included in the nutrient formulation.

ACTIVITY - Cytostatic; anti-diabetic; vasotropic; nootropic; neuroprotective; osteopathic.

Tests are covered in the abstract but now results are given.

MECHANISM OF ACTION - Antioxidant; cellular DNA protectant; synergistic.

USE - (I) is used to reduce the risk of cancer (claimed). (I) and (II) can be used in the treatment of diabetes (especially type II diabetes), cardiovascular disorders, Alzheimer's disease and osteoporosis. (I) and (II)

optimize cellular and tissue health and to minimize cellular events involved in the tumor development process of healthy individual in the 20-44 year age range.(I) and (II) act on the antioxidant/oxidative balance.

MANUAL CODE: CPI: B03-F; B03-G; B03-H; B04-A08C2; B04-A10; B05-A01B; B05-B01D; B10-A07; B10-E02; B14-F01; B14-J01A4; B14-N01; B14-S04

TECH

PHARMACEUTICALS - Preferred Combination: (I) and (II) are packaged with instructions directing the administration of (I). The instructions specify a timing schedule for the administration of (I) and (II) preferably with a tolerance of +/- 20%. The vitamin E component of (I) is d-alpha-tocopherol or its salt. The vitamin C nutrient in (I) is an ascorbate salt. The selenium nutrient in (I) is in the form of l-selenomethionine. The curcumin nutrient in (I) and (II) comprises curcumin from a tumeric extract. The mixed polyphenols in (I) comprises a mixture of catechins from a green tea extract. the mixed carotenoids in (I) comprises carotenoids from one or more vegetable extracts. The vitamin E, selenium curcumin, mixed polyphenols and mixed carotenoids are of natural origin. The salicin in (II) comprises salicin from a white willow bark at a concentration of 15% salicin. The calcium in (II) is calcium carbonate. The vitamin D in (II) is vitamin D3. The vitamin B6 in (II) is pyridoxine or its salt. The vitamin B12 in (II) is cyanocobalamin. The salicin and curcumin nutrients of (II) are of natural origin.

L453 ANSWER 76 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-437153 [37] WPIX
DOC. NO. CPI: C1998-132875 [37]
TITLE: **Dietary** product comprising **ubiquinone** , **vitamin E**, phospholipid, **selenium** and L-methionine - is effective in combatting oxidative stress and cell decay
DERWENT CLASS: B05; D13
INVENTOR: CARBONE S; GUARNIERI D; PASSI S
PATENT ASSIGNEE: (IDIF-N) IDI FARM SPA
COUNTRY COUNT: 80

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9833495	A1	19980806	(199837)*	EN	35[15]	A61K031-095
AU 9858780	A	19980825	(199903)	EN		A61K031-095
EP 966275	A1	19991229	(200005)	EN		A61K031-095
IT 1290907	B	19981214	(200137)	IT		A61K000-00
US 6303139	B1	20011016	(200164)	EN		A61K009-28

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9833495	A1	WO 1998-IT15	19980202
IT 1290907	B	IT 1997-RM45	19970131
AU 9858780	A	AU 1998-58780	19980202
EP 966275	A1	EP 1998-902177	19980202
EP 966275	A1	WO 1998-IT15	19980202
US 6303139	B1	WO 1998-IT15	19980202
US 6303139	B1	US 1999-355558	19990730

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9858780 A	Based on	WO 9833495 A
EP 966275 A1	Based on	WO 9833495 A
US 6303139 B1	Based on	WO 9833495 A

PRIORITY APPLN. INFO: IT 1997-RM45 19970131
INT. PATENT CLASSIF.:
MAIN: A61K000-00; A61K031-095; A61K009-28
SECONDARY: A61K031-195; A61K031-355; A61K031-66; A61K047-00; A61K009-68

BASIC ABSTRACT:

WO 1998033495 A1 UPAB: 20060114

Dietary product comprises (weight%): ubiquinone (5-8), stabilised vitamin E (12-25), polyunsaturated phospholipids (45-52), organic selenium (2-5), corresponding to (0.1-3 ionic selenium), L-methionine (23-32), the weight percentages being based on the total weight of the active ingredients.

USE - The product is effective in combatting cell oxidative stress, cell decay, acquired and/or congenital immunodeficiency or other alterations in the immune system. It is also effective as a coadjutant in the treatment of carcinogenesis and in infectious diseases of viral or bacterial origin or those deriving from other external pathogens, in myelimic and skin disorders, in cardiovascular diseases and in allergies. It may be used e.g. to treat tuberculosis, leprosy, herpes simplex labialis or genetalis, AIDS, multiple sclerosis, atopic dermatitis and vitiligo.

MANUAL CODE: CPI: B03-H; B04-L02; B05-B01D; B05-B01P; B10-A06; B10-B02D; B14-A01; B14-A02; B14-E11; B14-F01; B14-F02; B14-G01; B14-G02A; B14-N17; B14-S01; D03-H01P; D03-H01T2

Member(0003)
ABEQ EP 966275 A1 UPAB 20060114

Dietary product comprises (wt.%): ubiquinone (5-8), stabilised vitamin E (12-25), polyunsaturated phospholipids (45-52), organic selenium (2-5), corresponding to (0.1-3 ionic selenium), L-methionine (23-32), the weight percentages being based on the total weight of the active ingredients.

USE - The product is effective in combatting cell oxidative stress, cell decay, acquired and/or congenital immunodeficiency or other alterations in the immune system. It is also effective as a coadjutant in the treatment of carcinogenesis and in infectious diseases of viral or bacterial origin or those deriving from other external pathogens, in myelimic and skin disorders, in cardiovascular diseases and in allergies. It may be used e.g. to treat tuberculosis, leprosy, herpes simplex labialis or genetalis, AIDS, multiple sclerosis, atopic dermatitis and vitiligo.

L453 ANSWER 77 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-312061 [27] WPIX
DOC. NO. CPI: C1998-096224 [27]
TITLE: Product for incorporating, e.g. dietetic ingredients into drinks - comprises milli-spheres of gelifiable hydrocolloids incorporating active ingredients
DERWENT CLASS: D14
INVENTOR: BONILLA MUNOZ A; BONILLA MUOZ A; DELS SANTS GARCES GARCES J; DUENA A P; GARCES GARCES J; GARCES J G; MUNOZ A B; PARENTE DUEA A; PARENTE DUENA A
PATENT ASSIGNEE: (LIPO-N) LIPOTEC SA
COUNTRY COUNT: 77

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9821985	A1	19980528	(199827)*	ES	19[1]	A23P001-04
AU 9851217	A	19980610	(199843)	EN		A23P001-04
ES 2129334	A1	19990601	(199928)	ES		A23P001-04
EP 948907	A1	19991013	(199947)	EN		A23P001-04
MX 9702332	A1	19980501	(200007)	ES		A23L001-30
ES 2129334	B1	20000401	(200023)	ES		A23P001-04
EP 948907	B1	20011128	(200201)	EN		A23P001-04
DE 69708685	E	20020110	(200211)	DE		
MX 216846	B	20031010	(200467)	ES		
BR 9713375	A	20050412	(200526)	PT		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9821985	A1	WO 1997-ES288	19971121
ES 2129334	A1	ES 1996-2470	19961122
ES 2129334	B1	ES 1996-2470	19961122
MX 9702332	A1	MX 1997-2332	19970331
MX 216846	B	MX 1997-2332	19970331
DE 69708685	E	DE 1997-69708685	19971121
EP 948907	A1	EP 1997-945880	19971121
EP 948907	B1	EP 1997-945880	19971121
DE 69708685	E	EP 1997-945880	19971121
EP 948907	A1	WO 1997-ES288	19971121
EP 948907	B1	WO 1997-ES288	19971121
DE 69708685	E	WO 1997-ES288	19971121
BR 9713375	A	WO 1997-ES288	19971121
BR 9713375	A	BR 1997-13375	19971122
AU 9851217	A	AU 1998-51217	19971121

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69708685 E	Based on	EP 948907 A
AU 9851217 A	Based on	WO 9821985 A
EP 948907 A1	Based on	WO 9821985 A
EP 948907 B1	Based on	WO 9821985 A
DE 69708685 E	Based on	WO 9821985 A
BR 9713375 A	Based on	WO 9821985 A

PRIORITY APPLN. INFO: ES 1996-2470 19961122
ES 1996-2470 19961121
INT. PATENT CLASSIF.:
MAIN: A23L001-30; A23P001-04
BASIC ABSTRACT:

WO 1998021985 A1 UPAB: 20050828

Product for incorporating dietetic and alimentary ingredients into drinks, food and dietetic products comprises millispheres of gelifiable hydrocolloids incorporating the active ingredients in their interior.

ADVANTAGE - The millispheres have high resistance which enables them to be subjected to pasteurisation and sterilisation processes without releasing the active ingredients. MANUAL CODE: CPI: D03-K07

Member(0004)
ABEQ EP 948907 A1 UPAB 20050828
Product for incorporating dietetic and alimentary ingredients into drinks,

food and dietetic products comprises millispheres of gelifiable hydrocolloids incorporating the active ingredients in their interior.

ADVANTAGE - The millispheres have high resistance which enables them to be subjected to pasteurisation and sterilisation processes without releasing the active ingredients.

L453 ANSWER 78 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1995-043421 [06] WPIX
DOC. NO. CPI: C1995-019671 [06]
TITLE: Oral rinse compsns. for treating oral discomfort and gum disease - contain herbal mixture, vinegar and water, giving pleasant taste
DERWENT CLASS: B04; D21
INVENTOR: ZELAYA L M
PATENT ASSIGNEE: (ZELA-I) ZELAYA L M
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5376374	A	19941227	(199506)*	EN	5[0]	A61K035-78

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5376374 A		US 1993-66470	19930524

PRIORITY APPLN. INFO: US 1993-66470 19930524
INT. PATENT CLASSIF.:
MAIN: A61K035-78
SECONDARY: A61K007-26; C01G009-02; C07D305-12
BASIC ABSTRACT:
US 5376374 A UPAB: 20050511

Oral rinse compsns. comprise: (a) 23-33 volume% of a mixture of 8-12 pts. cayenne pepper liquid preparation, 48-64 pts. calendula liquid preparation, 48-64 pts. echinacea liquid preparation, 48-64 pts. goldenseal liquid preparation and 70-98 pts. propolis; and (b) 67-77 volume% of a mixture of vinegar and water in a ratio of 5:2 to 2:5.

Also claimed are (1) a concentrate for preparing the compsn., comprising tinctures of cayenne pepper, calendula, echinacea and goldenseal, and propolis; (2) a method for relieving oral discomfort, comprising inserting the compsn. in the mouth, holding it in the mouth and removing it from the mouth; and (3) a method for alleviating gum disease, comprising the steps of method (2).

USE - The compsns. are used to relieve oral discomfort resulting from irritated, red and bleeding gums, simple mouth blisters, cold sores, pizza burn, or cheek,lip and tongue bites, as well as to freshen the breath and remove debris after dentistry or dental hygiene procedures. - The compsns. have a pleasant taste and are suitable for professional and home use.
MANUAL CODE: CPI: B04-A09F; B04-A10G; B05-C08; B10-C04E; B14-N06A; D08-B08

L453 ANSWER 79 OF 79 WPIX COPYRIGHT 2006 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-185698 [24] WPIX
DOC. NO. CPI: C1990-080511 [21]
TITLE: Ameliorating inflammatory symptoms of respiratory disease - by admin. of methionine cpd. and dietary antioxidant
DERWENT CLASS: B05

INVENTOR: BAYLESS R K; HIRSCH G P
PATENT ASSIGNEE: (BAYL-I) BAYLESS R K
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 4927850	A	19900522	(199024)*	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4927850 A		US 1988-179230	19880408

PRIORITY APPLN. INFO: US 1988-179230 19880408
INT. PATENT CLASSIF.:
MAIN/SEC.: A61K031-20
BASIC ABSTRACT:

US 4927850 A UPAB: 20050501

Method for ameliorating inflammatory symptoms of respiratory disease, including oedema, adult respiratory distress syndrome, asbestosis and asthma, comprises admin. of an antioxidant in unit dosage form comprises active components consisting essentially of an antiinflammatory amount of methionine cpd(s) from methionine hydroxy analogue and methionine cpds. of formula (I) (dl- or d-form) MeS-(CH2)n-CH(NH2)-COOH (I) (where n = 1, 2 or 3) and pharmaceutically acceptable N-(mono- and dicarboxylic acid) acyl derivs. and alkyl esters, and an amount of a **dietary** antioxidant from vitamins A, C and E, **beta-carotene**, **Se**, **Zn** and/or **glutathione**. The methionine cpd. is admin. at 10-100 mg/kg/day. The cpd. is pref. admin. together with homocysteine affecting cpd(s) from betaine, glycine, serine, vitamin B12, vitamin B6 and folate, in amount sufficient to enable systemic conversion of excess homocysteine present to methionine (in the case of betaine) or cysteine. Dose of betaine, glycine and/or serine is 0.1-10 times the dosage of methionine cpd. @(5pp Dwg.No.0/0)

MANUAL CODE: CPI: B03-A; B03-F; B03-H; B04-C01A; B05-A03A; B05-B02C; B10-A24; B10-B02D; B10-C04D; B10-D03; B12-D02; B12-D07; B12-G03; B12-K02; B12-K06

FILE 'BIOSIS' ENTERED AT 15:35:50 ON 08 DEC 2006

L1 1188 SEA ABB=ON PLU=ON ACETYL L CARNITINE OR ACETYLCARNITINE OR ALCAR OR L ACETYLCARNITINE OR L CARNITINE ACETYL ESTER OR L O ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR NICETILE OR O ACETYL L CARNITINE OR O ACETYLCARNITINE

L2 1963 SEA ABB=ON PLU=ON LIPOIC ACID OR BYODINOR AL 300 OR D THIOCTIC ACID OR LIPOEC OR LIPOIC ACID

L3 255 SEA ABB=ON PLU=ON THIOCTIC ACID OR THIOGAMMA OR TIOBEC

L4 82337 SEA ABB=ON PLU=ON GLUTATHIONE OR AGIFUTOL S OR BAKEZYME RX OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIONE SH OR GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHIONE OR GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED GLUTATHIONE OR TATHION OR TATHIONE OR TRIPTIDE

L5 6263 SEA ABB=ON PLU=ON COENZYME Q10 OR CO ENZYME Q10AQUA Q 10L10 OR BIO QUINON OR BIO QUINONE Q10 OR COQ10 OR ENSOR B OR KANEKA Q10 OR KUDESAN OR NEUQUINON OR NEUQUINONE OR NSC 140865 OR Q 10AA OR Q GEL 100 OR UBIDECARENONE OR UBIQUINONE

L6 12557 SEA ABB=ON PLU=ON N ACETYLCYSTEINE OR N ACETYL CYSTEINE OR ACC OR ACETILCYSTEINA OR ACETYLCYSTEINE OR AIRBRON OR BRONCHOLYSIN OR BRONCHOLYSIN OR BRUNAC OR EXOMUC OR FABROL OR FLUATOX OR FLUIBIOTIC OR FLUIMICIL OR FLUIMICIL INFANTIL OR FLUIMUCETIN

L7 766 SEA ABB=ON PLU=ON FLUIMUCIL OR FLUMIL OR FLUPROWIT OR HYPOTEARS OR L ACETYLCYSTEINE OR L N ACETYLCYSTEINE OR MERCAPTURIC ACID OR MERCAPTURIC ACID OR MUCO SANIGEN OR MUCOCEDYL OR MUCOFILIN OR MUCOLATOR OR MUCOLYTICUM

L8 7061 SEA ABB=ON PLU=ON MUCOLYTICUM LAPPE OR MUCOLYTIKUM LAPPE OR MUCOMYST OR MUCOSOLVIN OR MUCRET OR N ACETYL R CYSTEINE OR N ACETYL L CYSTEINE OR N ACETYLCYSTEINE OR NA ACETYLCYSTEIN E OR NEO FLUIMUCIL OR NSC 111180 OR PARVOLEXS

L9 0 SEA ABB=ON PLU=ON RESPAIRE OR SYNTEMUCOL OR TIXAIR

L10 189835 SEA ABB=ON PLU=ON ZINC OR ZN OR ((F)(W)(1000 OR 1500 OR 2000)) OR MCS OR ECKA OR SELENIUM OR SE

L11 18553 SEA ABB=ON PLU=ON FLAVONOID OR BIOFLAVONOID OR ((PHENYL)(W)(B ENZOPYRANS OR CHROMENES))

L12 24840 SEA ABB=ON PLU=ON VITAMIN E OR AQUASOL E OR E MIX 40 OR E MIX 70L OR EREVIT FORTE OR EVION OR FUJIMIX E 20N OR HYDROVIT E FORTE OR IRGANOX E 217 OR IRGANOX E 218 OR JUVELA E OR JUVELA FOOD 500 OR MDE 6000 OR PALMVITEE OR RIKEN E OIL 100 OR ROCAVIT E

L13 3 SEA ABB=ON PLU=ON RONTEX 201 OR SUNACTIVE VE OR SURSUM

L14 3273 SEA ABB=ON PLU=ON VITAMIN B6 OR ADERMINE OR VITAMIN H

L15 25903 SEA ABB=ON PLU=ON L ASCORBIC ACID OR 3 KETO L GULOFURANOLACTONE OR 3 OXO L GULOFURANOLACTONE OR ADENEX OR ALLERCORB OR ANTISCORBIC VITAMIN OR ANTISCORBUTIC VITAMIN OR ASCOLTIN OR ASCORBAJEN OR ASCORBIC ACID OR ASCORBICAP

L16 318 SEA ABB=ON PLU=ON ASCORBUTINA OR ASCORELL OR ASCORIN OR ASCORTEAL OR ASCORVIT OR C QUIN OR C VIMIN OR CANTAN OR CANTAXIN OR CATAVIN C OR CE MI LIN OR CE VI SOL OR CEBICURE

L17 3566 SEA ABB=ON PLU=ON CEBION OR CEBIONE OR CECON OR CEGIOLAN OR CEGLION OR CEKLIN OR CELASKON OR CELIN OR CELL C OR CEMAGYL OR CENETONE OR CEREON OR CERGONA OR CESCORBAT OR CETAMID OR CETANE

L18 15732 SEA ABB=ON PLU=ON CETANE CAPS TC OR CETEBE OR CETEMICAN OR CEVALIN OR CEVATINE OR CEVEX OR CEVIMIN OR CEVITAL OR CEVITAMIC ACID OR VITAMIN C

L19 11952 SEA ABB=ON PLU=ON BETA(2A)CAROTENE OR BETACAROTENE OR BETAVIT OR C I 40800

L20 3 SEA ABB=ON PLU=ON CAROTABEN OR CAROTENE BASE 80S OR KPMK OR LUCARATIN OR LUCAROTIN OR LUROTIN OR NSC 62794 OR PROVATENE OR

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                PROVATENOL OR SERLABO OR SOLATENE
L21          341 SEA ABB=ON  PLU=ON  KAISER J?/AU
L22            1 SEA ABB=ON  PLU=ON  L1 AND L2 AND ((L6 OR L7 OR L8 OR L9))
                D SCAN
L23            1 SEA ABB=ON  PLU=ON  L1 AND L2 AND ((L6 OR L7 OR L8))
L24       103117 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR
                L8)
L25        91598 SEA ABB=ON  PLU=ON  (L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR
                L17 OR L18 OR L19 OR L20)
L26            0 SEA ABB=ON  PLU=ON  L21 AND L24 AND L10 AND L25
L27            0 SEA ABB=ON  PLU=ON  L21 AND L24 AND L25
L28            1 SEA ABB=ON  PLU=ON  L21 AND L24
L29            2 SEA ABB=ON  PLU=ON  L21 AND L25
L30            8 SEA ABB=ON  PLU=ON  L21 AND L10
L31           11 SEA ABB=ON  PLU=ON  (L26 OR L27 OR L28 OR L29 OR L30)
                D KWIC
                D KWIC 2
                D TI
L32           10 SEA ABB=ON  PLU=ON  L31 NOT (BACILLUS SUBTILIS TYPE II
                ISOPENTENYL DIPHOSPHATE ISOMERASE)/TI
                D SAVE
                SAVE TEMP L32 ARN545AU/A
L33         1187 SEA ABB=ON  PLU=ON  L24 AND L10 AND L25
                D ALL
                E IMMUNE SYSTEM/CT
                E E3+&
                E IMMUNE SYSTEM/CT
                E E3+ALL
L34      1235218 SEA ABB=ON  PLU=ON  IMMUNE SYSTEM/CT
L35           69 SEA ABB=ON  PLU=ON  L33 AND L34
                D KWIC
                D TI
                E NUTRIENT/CT
                E NUTRIENTS/CT
                E NUTRIENT/CT
                E E3+ALL
L36        26562 SEA ABB=ON  PLU=ON  NUTRIENT/CT
L37            0 SEA ABB=ON  PLU=ON  L35 AND L3
L38            3 SEA ABB=ON  PLU=ON  L35 AND L36
                D TI KWIC
                D TI KWIC 2-3

     FILE 'MEDLINE' ENTERED AT 15:57:41 ON 08 DEC 2006
                E IMMUNE SYSTEM/CT
                E E3+ALL
                E NUTRIENT/CT
                E NUTRIENTS/CT
                E FOOD/CT
                E E3+ALL
L39       489542 SEA ABB=ON  PLU=ON  FOOD OR CANDY OR CEREAL OR CONDIMENT OR
                BREAD OR DIARY OR DIETARY OR EGG OR FLOUR OR HONEY OR MEAT OR
                MICRONUTRIENT OR MICRO NUTRIENT OR NUTRIENT

     FILE 'BIOSIS' ENTERED AT 16:05:12 ON 08 DEC 2006
L40      1004003 SEA ABB=ON  PLU=ON  FOOD OR CANDY OR CEREAL OR CONDIMENT OR
                BREAD OR DIARY OR DIETARY OR EGG OR FLOUR OR HONEY OR MEAT OR
                MICRONUTRIENT OR MICRO NUTRIENT OR NUTRIENT
L41          439 SEA ABB=ON  PLU=ON  L33 AND L40
L42          376 SEA ABB=ON  PLU=ON  L24(15A) L10 (15A) L25
L43           19 SEA ABB=ON  PLU=ON  L42 AND L34
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L44             6 SEA ABB=ON  PLU=ON  L42 AND L36
                  D SCAN
                  D ALL L42
                  E IMMUNOLOGY/CT
                  E E3+ALL
L45         24344 SEA ABB=ON  PLU=ON  IMMUNOLOGY/CT
L46             0 SEA ABB=ON  PLU=ON  L42 AND L45
L47             0 SEA ABB=ON  PLU=ON  IMMUNOLOGY/CC
L48       1099748 SEA ABB=ON  PLU=ON  34502/CC
                  D KWIC
L49            19 SEA ABB=ON  PLU=ON  L42 AND L48
                  D TI KWIC 1-3
L50            31 SEA ABB=ON  PLU=ON  (L38 OR L43 OR L44 OR L49)
L51            19 SEA ABB=ON  PLU=ON  L50 AND PY<2004
                  SAVE TEMP L51 ARN545A/A

     FILE 'WPIX' ENTERED AT 16:16:21 ON 08 DEC 2006
L52           218 SEA ABB=ON  PLU=ON  ACETYL L CARNITINE/BI,ABEX OR ACETYLCARNITI
                  NE/BI,ABEX OR ALCAR/BI,ABEX OR L ACETYLCARNITINE/BI,ABEX OR L
                  CARNITINE ACETYL ESTER/BI,ABEX OR L O ACETYLCARNITINE/BI,ABEX
                  OR LEVOCARNITINE ACETYL/BI,ABEX OR NICETILE/BI,ABEX OR O
                  ACETYL L CARNITINE/BI,ABEX OR O ACETYLCARNITINE/BI,ABEX
L53          1049 SEA ABB=ON  PLU=ON  LIPOIC ACID/BI,ABEX OR BYODINOR AL
                  300/BI,ABEX OR D THIOCTIC ACID/BI,ABEX OR LIPOEC/BI,ABEX OR
                  LIPOIC ACID/BI,ABEX
L54           157 SEA ABB=ON  PLU=ON  THIOCTIC ACID/BI,ABEX OR THIOGAMMA/BI,ABEX
                  OR TIOBEC/BI,ABEX
L55          5016 SEA ABB=ON  PLU=ON  GLUTATHIONE/BI,ABEX OR  AGIFUTOL S/BI,ABEX
                  OR BAKEZYME RX/BI,ABEX OR COPREN/BI,ABEX OR DELTATHIONE/BI,ABEX
                   OR GLUTATHION/BI,ABEX OR GLUTATHIONE SH/BI,ABEX OR GLUTIDE/BI,
                  ABEX OR GLUTINAL/BI,ABEX OR GSH/BI,ABEX OR ISETHION/BI,ABEX OR
                  L GLUTATHIONE/BI,ABEX OR GLUTAMYL L CYSTEINYL GLYCINE/BI,ABEX
                  OR NEUTHION/BI,ABEX OR REDUCED GLUTATHIONE/BI,ABEX OR TATHION/B
                  I,ABEX OR TATHIONE/BI,ABEX OR TRIPTIDE/BI,ABEX
L56          1644 SEA ABB=ON  PLU=ON  COENZYME Q10/BI,ABEX OR  CO ENZYME Q10AQUA
                  Q 10L10/BI,ABEX OR BIO QUINON/BI,ABEX OR BIO QUINONE Q10/BI,ABE
                  X OR COQ10/BI,ABEX OR ENSOR B/BI,ABEX OR KANEKA Q10/BI,ABEX OR
                  KUDESAN/BI,ABEX OR NEUQUINON/BI,ABEX OR NEUQUINONE/BI,ABEX OR
                  NSC 140865/BI,ABEX OR Q 10AA/BI,ABEX OR Q GEL 100/BI,ABEX OR
                  UBIDECARENONE/BI,ABEX OR UBIQUINONE/BI,ABEX
L57          2859 SEA ABB=ON  PLU=ON  N ACETYLCYSTEINE/BI,ABEX  OR N ACETYL
                  CYSTEINE/BI,ABEX OR ACC/BI,ABEX OR ACETILCYSTEINA/BI,ABEX OR
                  ACETYLCYSTEINE/BI,ABEX OR AIRBRON/BI,ABEX OR BRONCHOLYSIN/BI,AB
                  EX OR BRONCHOLYSIN/BI,ABEX OR BRUNAC/BI,ABEX OR EXOMUC/BI,ABEX
                  OR FABROL/BI,ABEX OR FLUATOX/BI,ABEX OR FLUIBIOTIC/BI,ABEX OR
                  FLUIMICIL/BI,ABEX OR FLUIMICIL INFANTIL/BI,ABEX OR FLUIMUCETIN/
                  BI,ABEX
L58            19 SEA ABB=ON  PLU=ON  FLUIMUCIL/BI,ABEX OR FLUMIL/BI,ABEX OR
                  FLUPROWIT/BI,ABEX OR HYPOTEARS/BI,ABEX OR L ACETYLCYSTEINE/BI,A
                  BEX OR L N ACETYLCYSTEINE/BI,ABEX OR MERCAPTURIC ACID/BI,ABEX
                  OR MERCAPTURIC ACID/BI,ABEX OR MUCO SANIGEN/BI,ABEX OR
                  MUCOCEDYL/BI,ABEX OR MUCOFILIN/BI,ABEX OR MUCOLATOR/BI,ABEX OR
                  MUCOLYTICUM/BI,ABEX
L59           766 SEA ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM
                  LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI,ABEX OR
                  MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L
                  CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR NA
                  ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR NSC
                  111180/BI,ABEX OR PARVOLEXS/BI,ABEX
L60           766 SEA ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCOLYTIKUM
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LAPPE/BI,ABEX OR MUCOMYST/BI,ABEX OR MUCOSOLVIN/BI,ABEX OR MUCRET/BI,ABEX OR N ACETYL R CYSTEINE/BI,ABEX OR N ACETYL L CYSTEINE/BI,ABEX OR N ACETYLCYSTEINE/BI,ABEX OR N ALPHA ACETYLCYSTEINE/BI,ABEX OR NEO FLUIMUCIL/BI,ABEX OR NSC 111180/BI,ABEX OR PARVOLEXS/BI,ABEX

L61 1 SEA ABB=ON PLU=ON RESPAIRE/BI,ABEX OR SYNTEMUCOL/BI,ABEX OR TIXAIR/BI,ABEX

L62 215087 SEA ABB=ON PLU=ON ZINC/BI,ABEX OR ZN/BI,ABEX OR ((F/BI,ABEX)(W)(1000/BI,ABEX OR 1500/BI,ABEX OR 2000/BI,ABEX)) OR MCS/BI,ABEX OR ECKA/BI,ABEX OR SELENIUM/BI,ABEX OR SE/BI,ABEX

L63 2439 SEA ABB=ON PLU=ON FLAVONOID/BI,ABEX OR BIOFLAVONOID/BI,ABEX OR ((PHENYL/BI,ABEX)(W)(BENZOPYRANS/BI,ABEX OR CHROMENES/BI,ABEX))

L64 7857 SEA ABB=ON PLU=ON VITAMIN E/BI,ABEX OR AQUASOL E/BI,ABEX OR E MIX 40/BI,ABEX OR E MIX 70L/BI,ABEX OR EREVIT FORTE/BI,ABEX OR EVION/BI,ABEX OR FUJIMIX E 20N/BI,ABEX OR HYDROVIT E FORTE/BI,ABEX OR IRGANOX E 217/BI,ABEX OR IRGANOX E 218/BI,ABEX OR JUVELA E/BI,ABEX OR JUVELA FOOD 500/BI,ABEX OR MDE 6000/BI,ABEX OR PALMVITEE/BI,ABEX OR RIKEN E OIL 100/BI,ABEX OR ROCAVIT E/BI,ABEX

L65 0 SEA ABB=ON PLU=ON RONTEX 201/BI,ABEX OR SUNACTIVE VE/BI,ABEX OR SURSUM/BI,ABEX

L66 2040 SEA ABB=ON PLU=ON VITAMIN B6/BI,ABEX OR ADERMINE/BI,ABEX OR VITAMIN H/BI,ABEX

L67 14268 SEA ABB=ON PLU=ON L ASCORBIC ACID/BI,ABEX OR 3 KETO L GULOFURANOLACTONE/BI,ABEX OR 3 OXO L GULOFURANOLACTONE/BI,ABEX OR ADENEX/BI,ABEX OR ALLERCORB/BI,ABEX OR ANTISCORBIC VITAMIN/BI,ABEX OR ANTISCORBUTIC VITAMIN/BI,ABEX OR ASCOLTIN/BI,ABEX OR ASCORBAJEN/BI,ABEX OR ASCORBIC ACID/BI,ABEX OR ASCORBICAP/BI,ABEX

L68 1 SEA ABB=ON PLU=ON ASCORBUTINA/BI,ABEX OR ASCORELL/BI,ABEX OR ASCORIN/BI,ABEX OR ASCORTEAL/BI,ABEX OR ASCORVIT/BI,ABEX OR C QUIN/BI,ABEX OR C VIMIN/BI,ABEX OR CANTAN/BI,ABEX OR CANTAXIN/BI,ABEX OR CATAVIN C/BI,ABEX OR CE MI LIN/BI,ABEX OR CE VI SOL/BI,ABEX OR CEBICURE/BI,ABEX

L69 2172 SEA ABB=ON PLU=ON CEBION/BI,ABEX OR CEBIONE/BI,ABEX OR CECON/BI,ABEX OR CEGIOLAN/BI,ABEX OR CEGLION/BI,ABEX OR CEKLIN/BI,ABEX OR CELASKON/BI,ABEX OR CELIN/BI,ABEX OR CELL C/BI,ABEX OR CEMAGYL/BI,ABEX OR CENETONE/BI,ABEX OR CEREON/BI,ABEX OR CERGONA/BI,ABEX OR CESCORBAT/BI,ABEX OR CETAMID/BI,ABEX OR CETANE/BI,ABEX

L70 5867 SEA ABB=ON PLU=ON CETANE CAPS TC/BI,ABEX OR CETEBE/BI,ABEX OR CETEMICAN/BI,ABEX OR CEVALIN/BI,ABEX OR CEVATINE/BI,ABEX OR CEVEX/BI,ABEX OR CEVIMIN/BI,ABEX OR CEVITAL/BI,ABEX OR CEVITAMIC ACID/BI,ABEX OR VITAMIN C/BI,ABEX

L71 2230 SEA ABB=ON PLU=ON BETA/BI,ABEX(2A)CAROTENE/BI,ABEX OR BETACAROTENE/BI,ABEX OR BETAVIT/BI,ABEX OR C I 40800/BI,ABEX

L72 2 SEA ABB=ON PLU=ON CAROTABEN/BI,ABEX OR CAROTENE BASE 80S/BI,ABEX OR KPMK/BI,ABEX OR LUCARATIN/BI,ABEX OR LUCAROTIN/BI,ABEX OR LUROTIN/BI,ABEX OR NSC 62794/BI,ABEX OR PROVATENE/BI,ABEX OR PROVATENOL/BI,ABEX OR SERLABO/BI,ABEX OR SOLATENE/BI,ABEX

L73 269 SEA ABB=ON PLU=ON KAISER J?/AU

L74 9933 SEA ABB=ON PLU=ON (L52 OR L53 OR L54 OR L55 OR L56 OR L57 OR L58 OR L59 OR L60 OR L61)

L75 30659 SEA ABB=ON PLU=ON (L63 OR L64 OR L65 OR L66 OR L67 OR L68 OR L69 OR L70 OR L71 OR L72)

L76 1 SEA ABB=ON PLU=ON L73 AND L62 AND L74 AND L75

L77 6 SEA ABB=ON PLU=ON L73 AND L62

L78 1 SEA ABB=ON PLU=ON L73 AND L74 AND L75

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L79           1 SEA ABB=ON  PLU=ON  L73 AND L75
L80           6 SEA ABB=ON  PLU=ON  (L76 OR L77 OR L78 OR L79)
                SAVE TEMP L80 ARN545WX1AU/A
L81         581 SEA ABB=ON  PLU=ON  L62 AND L74 AND L75
L82      353386 SEA ABB=ON  PLU=ON  FOOD/BI,ABEX OR CANDY/BI,ABEX OR CEREAL/BI,
                ABEX OR CONDIMENT/BI,ABEX OR BREAD/BI,ABEX OR DIARY/BI,ABEX OR
                DIETARY/BI,ABEX OR EGG/BI,ABEX OR FLOUR/BI,ABEX OR HONEY/BI,ABE
                X OR MEAT/BI,ABEX OR MICRONUTRIENT/BI,ABEX OR MICRO NUTRIENT/BI
                ,ABEX OR NUTRIENT/BI,ABEX
L83         274 SEA ABB=ON  PLU=ON  L81 AND L82
L84         172 SEA ABB=ON  PLU=ON  L62 (10A) L74 (10A)L75
                D ALL L76
L85        1152 SEA ABB=ON  PLU=ON  S03-E14A2/MC
L86           0 SEA ABB=ON  PLU=ON  L84 AND L85
                D ALL L84

     FILE 'STNGUIDE' ENTERED AT 16:32:27 ON 08 DEC 2006

     FILE 'WPIX' ENTERED AT 16:37:57 ON 08 DEC 2006
L87         135 SEA ABB=ON  PLU=ON  L62 (7A) L74 (7A)L75
L88          67 SEA ABB=ON  PLU=ON  L87 AND L82
L89         786 SEA ABB=ON  PLU=ON  L67(7A)L82
L90           9 SEA ABB=ON  PLU=ON  L87(7A)L82
                D SCAN
L91          14 SEA ABB=ON  PLU=ON  L87(15A)L82
L92         113 SEA ABB=ON  PLU=ON  L62 (5A) L74 (5A)L75
L93          54 SEA ABB=ON  PLU=ON  L92 AND L82
L94           9 SEA ABB=ON  PLU=ON  L84 (7A)L82
L95          18 SEA ABB=ON  PLU=ON  L84 (15A)L82
                SAVE TEMP L95 ARN545WX1A/A
                D SAVE

     FILE 'STNGUIDE' ENTERED AT 16:44:44 ON 08 DEC 2006

     FILE 'BIOSIS' ENTERED AT 16:47:35 ON 08 DEC 2006
                ACT ARN545AU/A
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L96 (       1188)SEA ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCARNITINE OR
                ALCAR OR L ACETYLCARNITINE OR L CARNITINE ACETYL ESTER OR L O
                ACETYLCARNITINE OR LEVOCARNITINE ACETYL OR NICETILE OR O
                ACETYL L CARNITINE OR O ACETYLCARNITINE
L97 (       1963)SEA ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300 OR D
                THIOCTIC ACID OR LIPOEC OR LIPOIC ACID
L98 (        255)SEA ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR TIOBEC
L99 (      82337)SEA ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR BAKEZYME RX
                OR COPREN OR DELTATHIONE OR GLUTATHION OR GLUTATHIONE SH OR
                GLUTIDE OR GLUTINAL OR GSH OR ISETHION OR L GLUTATHIONE OR
                GLUTAMYL L CYSTEINYL GLYCINE OR NEUTHION OR REDUCED GLUTATHIONE
                 OR TATHION OR TATHIONE OR TRIPTIDE
L100(       6263)SEA FILE=BIOSIS ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME Q10A
L101(      12557)SEA FILE=BIOSIS ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL C
L102(        766)SEA FILE=BIOSIS ABB=ON  PLU=ON  FLUIMUCIL OR FLUMIL OR FLUPROWI
L103(       7061)SEA FILE=BIOSIS ABB=ON  PLU=ON  MUCOLYTICUM LAPPE OR MUCOLYTIKU
L104(     189835)SEA FILE=BIOSIS ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR 1
L105(      18553)SEA FILE=BIOSIS ABB=ON  PLU=ON  FLAVONOID OR BIOFLAVONOID OR ((
L106(      24840)SEA FILE=BIOSIS ABB=ON  PLU=ON  VITAMIN E OR AQUASOL E OR E MIX
L107(          3)SEA FILE=BIOSIS ABB=ON  PLU=ON  RONTEX 201 OR SUNACTIVE VE  OR
L108(       3273)SEA FILE=BIOSIS ABB=ON  PLU=ON  VITAMIN B6 OR ADERMINE OR VITAM
L109(      25903)SEA FILE=BIOSIS ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L GU
L110(        318)SEA FILE=BIOSIS ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR ASCO
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L111(      3566)SEA FILE=BIOSIS ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR C
L112(     15732)SEA FILE=BIOSIS ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR CET
L113(     11952)SEA FILE=BIOSIS ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTEN
L114(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE 80S
L115(       341)SEA FILE=BIOSIS ABB=ON  PLU=ON  KAISER J?/AU
L116(    103117)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L96 OR L97 OR L98 OR L99 OR L1
L117(     91598)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L105 OR L106 OR L107 OR L108 O
L118(         0)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116 AND L104 AND L117
L119(         0)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116 AND L117
L120(         1)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L116
L121(         2)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L117
L122(         8)SEA FILE=BIOSIS ABB=ON  PLU=ON  L115 AND L104
L123(        11)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L118 OR L119 OR L120 OR L121 O
L124         10 SEA ABB=ON  PLU=ON  L123 NOT (BACILLUS SUBTILIS TYPE II
                ISOPENTENYL DIPHOSPHATE ISOMERASE)/TI
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     FILE 'EMBASE' ENTERED AT 16:47:37 ON 08 DEC 2006
                ACT ARN545EM2AU/A
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L125(       419)SEA FILE=EMBASE ABB=ON  PLU=ON  BIOFLAVONOID/CT
L126(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L127(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L128(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L129(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L130(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L131(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L132(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L133(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L134(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L135(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L136(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L137(        10)SEA FILE=EMBASE ABB=ON  PLU=ON  L135 AND L133 AND L136
L138(       799)SEA FILE=EMBASE ABB=ON  PLU=ON  KAISER J?/AU
L139(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L137
L140(     67925)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L126 OR L127 OR L128) OR L134
L141(     68249)SEA FILE=EMBASE ABB=ON  PLU=ON  (L140 OR L125)
L142(     49611)SEA FILE=EMBASE ABB=ON  PLU=ON  (L129 OR L130)
L143(     42496)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L135 OR L132 OR L131 OR L133
L144(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L141 AND L142 AND L143
L145(    684624)SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L146(    347659)SEA FILE=EMBASE ABB=ON  PLU=ON  NUTRIENT+NT/CT
L147(         1)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L145 AND L146 AND (L14
L148(         2)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L146 AND (L141 OR L142
L149(         1)SEA FILE=EMBASE ABB=ON  PLU=ON  L138 AND L145 AND (L141 OR L142
L150          2 SEA ABB=ON  PLU=ON  (L144 OR L147 OR L139 OR L148 OR L149)
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     FILE 'HCAPLUS' ENTERED AT 16:47:39 ON 08 DEC 2006
                ACT ARN545HC1AU/A
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L151(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L152(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L153(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L154(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L155(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L156(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L157(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L158(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L159(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
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L160(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L161(       999)SEA FILE=HCAPLUS ABB=ON  PLU=ON  KAISER J?/AU
L162(     48589)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L151 OR L152 OR L153 OR L154)
L163(    345705)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L155 OR L156)
L164(     59447)SEA FILE=HCAPLUS ABB=ON  PLU=ON  FLAVONOIDS+OLD,NT/CT
L165(       405)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L164(L)BIOFLAV?/OBI
L166(    174868)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L157 OR L158 OR L159 OR L160
L167(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L162 AND L163 AND L16
L168(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L166
L169(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L162
L170(        11)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L163
L171(        11)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L167 OR L168 OR L169 OR L170)
L172(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L173(      6706)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L172
L174(         2)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L161 AND L173
L175         11 SEA ABB=ON  PLU=ON  L171 OR L174
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     FILE 'MEDLINE' ENTERED AT 16:47:41 ON 08 DEC 2006
                ACT ARN545MD1AU/A
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L176(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L177(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L178(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L179(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L180(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L181(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L182(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L183(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L184(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L185(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L186(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L187(     34026)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOIDS+NT/CT
L188(      4488)SEA FILE=MEDLINE ABB=ON  PLU=ON  L185
L189(     19311)SEA FILE=MEDLINE ABB=ON  PLU=ON  L182
L190(      1156)SEA FILE=MEDLINE ABB=ON  PLU=ON  L183
L191(     28079)SEA FILE=MEDLINE ABB=ON  PLU=ON  L184
L192(     46858)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L180 OR L181)
L193(     37527)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L186 OR L176 OR L177 OR L178
L194(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
L195(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCA
L196(       638)SEA FILE=MEDLINE ABB=ON  PLU=ON  KAISER J?/AU
L197(    737843)SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L198(        17)SEA FILE=MEDLINE ABB=ON  PLU=ON  L196 AND L197
L199          1 SEA ABB=ON  PLU=ON  L198 AND (((L187 OR L188 OR L189 OR L190
                OR L191)) OR L192 OR ((L193 OR L194 OR L195)))
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                ACT ARN545MD2AU/A
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L200(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCA
L201(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
L202(      2025)SEA FILE=MEDLINE ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR
L203(     73792)SEA FILE=MEDLINE ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR
L204(      6758)SEA FILE=MEDLINE ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME Q10
L205(     12418)SEA FILE=MEDLINE ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL
L206(       709)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLUIMUCIL OR FLUMIL OR FLUPROW
L207(      6869)SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCOLYTICUM LAPPE OR MUCOLYTIK
L208(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  RESPAIRE OR SYNTEMUCOL OR TIXA
L209(    322532)SEA FILE=MEDLINE ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR
L210(     19771)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOID OR BIOFLAVONOID OR (
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L211(     25881)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN E OR AQUASOL E OR E MI
L212(         4)SEA FILE=MEDLINE ABB=ON  PLU=ON  RONTEX 201 OR SUNACTIVE VE  OR
L213(      6189)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN B6 OR ADERMINE OR VITA
L214(     34014)SEA FILE=MEDLINE ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L G
L215(        62)SEA FILE=MEDLINE ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR ASC
L216(      1045)SEA FILE=MEDLINE ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR
L217(     12947)SEA FILE=MEDLINE ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR CE
L218(      7825)SEA FILE=MEDLINE ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTE
L219(         2)SEA FILE=MEDLINE ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE 80S
L220(         0)SEA FILE=MEDLINE ABB=ON  PLU=ON  LUROTIN OR NSC 62794 OR PROVAT
L221(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  SERLABO OR SOLATENE
L222(       638)SEA FILE=MEDLINE ABB=ON  PLU=ON  KAISER J?/AU
L223(     93944)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L200 OR L201 OR L202 OR L203
L224(     89206)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L210 OR L211 OR L212 OR L213
L225(    631889)SEA FILE=MEDLINE ABB=ON  PLU=ON  FOOD+NT/CT
L226(        22)SEA FILE=MEDLINE ABB=ON  PLU=ON  L222 AND L225
L227(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  L226 AND ((L223 OR L224 OR L20
L228(        14)SEA FILE=MEDLINE ABB=ON  PLU=ON  L222 AND ((L223 OR L224 OR L20
L229         14 SEA ABB=ON  PLU=ON  (L227 OR L228)
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     FILE 'WPIX' ENTERED AT 16:47:43 ON 08 DEC 2006
               ACT ARN545WX1AU/A
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L230(       218)SEA FILE=WPIX ABB=ON  PLU=ON  ACETYL L CARNITINE/BI,ABEX OR ACE
L231(      1049)SEA FILE=WPIX ABB=ON  PLU=ON  LIPOIC ACID/BI,ABEX OR BYODINOR A
L232(       157)SEA FILE=WPIX ABB=ON  PLU=ON  THIOCTIC ACID/BI,ABEX OR THIOGAMM
L233(      5016)SEA FILE=WPIX ABB=ON  PLU=ON  GLUTATHIONE/BI,ABEX OR  AGIFUTOL
L234(      1644)SEA FILE=WPIX ABB=ON  PLU=ON  COENZYME Q10/BI,ABEX OR  CO ENZYM
L235(      2859)SEA FILE=WPIX ABB=ON  PLU=ON  N ACETYLCYSTEINE/BI,ABEX  OR N AC
L236(        19)SEA FILE=WPIX ABB=ON  PLU=ON  FLUIMUCIL/BI,ABEX OR FLUMIL/BI,AB
L237(       766)SEA FILE=WPIX ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCO
L238(       766)SEA FILE=WPIX ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCO
L239(         1)SEA FILE=WPIX ABB=ON  PLU=ON  RESPAIRE/BI,ABEX OR SYNTEMUCOL/BI
L240(    215087)SEA FILE=WPIX ABB=ON  PLU=ON  ZINC/BI,ABEX OR ZN/BI,ABEX OR ((F
L241(      2439)SEA FILE=WPIX ABB=ON  PLU=ON  FLAVONOID/BI,ABEX OR BIOFLAVONOID
L242(      7857)SEA FILE=WPIX ABB=ON  PLU=ON  VITAMIN E/BI,ABEX OR AQUASOL E/BI
L243(         0)SEA FILE=WPIX ABB=ON  PLU=ON  RONTEX 201/BI,ABEX OR SUNACTIVE V
L244(      2040)SEA FILE=WPIX ABB=ON  PLU=ON  VITAMIN B6/BI,ABEX OR ADERMINE/BI
L245(     14268)SEA FILE=WPIX ABB=ON  PLU=ON  L ASCORBIC ACID/BI,ABEX  OR 3 KET
L246(         1)SEA FILE=WPIX ABB=ON  PLU=ON  ASCORBUTINA/BI,ABEX OR ASCORELL/B
L247(      2172)SEA FILE=WPIX ABB=ON  PLU=ON  CEBION/BI,ABEX OR CEBIONE/BI,ABEX
L248(      5867)SEA FILE=WPIX ABB=ON  PLU=ON  CETANE CAPS TC/BI,ABEX OR CETEBE/
L249(      2230)SEA FILE=WPIX ABB=ON  PLU=ON  BETA/BI,ABEX(2A)CAROTENE/BI,ABEX
L250(         2)SEA FILE=WPIX ABB=ON  PLU=ON  CAROTABEN/BI,ABEX OR CAROTENE BAS
L251(       269)SEA FILE=WPIX ABB=ON  PLU=ON  KAISER J?/AU
L252(      9933)SEA FILE=WPIX ABB=ON  PLU=ON  (L230 OR L231 OR L232 OR L233 OR
L253(     30659)SEA FILE=WPIX ABB=ON  PLU=ON  (L241 OR L242 OR L243 OR L244 OR
L254(         1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L240 AND L252 AND L253
L255(         6)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L240
L256(         1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L252 AND L253
L257(         1)SEA FILE=WPIX ABB=ON  PLU=ON  L251 AND L253
L258          6 SEA ABB=ON  PLU=ON  (L254 OR L255 OR L256 OR L257)
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     FILE 'BIOSIS' ENTERED AT 16:50:01 ON 08 DEC 2006
               D QUE L124

     FILE 'EMBASE' ENTERED AT 16:50:11 ON 08 DEC 2006
               D QUE L150
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     FILE 'HCAPLUS' ENTERED AT 16:50:23 ON 08 DEC 2006
               D QUE L175

     FILE 'MEDLINE' ENTERED AT 16:50:39 ON 08 DEC 2006
               D QUE L199
               D QUE L229

     FILE 'WPIX' ENTERED AT 16:52:22 ON 08 DEC 2006
               D QUE L258

     FILE 'MEDLINE, BIOSIS, EMBASE, HCAPLUS, WPIX' ENTERED AT 16:56:31 ON 08
     DEC 2006
L259         29 DUP REM L199 L229 L124 L150 L175 L258 (15 DUPLICATES REMOVED)
                    ANSWERS '1-14' FROM FILE MEDLINE
                    ANSWERS '15-17' FROM FILE BIOSIS
                    ANSWERS '18-19' FROM FILE EMBASE
                    ANSWERS '20-26' FROM FILE HCAPLUS
                    ANSWERS '27-29' FROM FILE WPIX

     FILE 'BIOSIS' ENTERED AT 16:58:16 ON 08 DEC 2006
               ACT ARN545A/A
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L260(      1188)SEA FILE=BIOSIS ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCAR
L261(      1963)SEA FILE=BIOSIS ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
L262(       255)SEA FILE=BIOSIS ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR T
L263(     82337)SEA FILE=BIOSIS ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR B
L264(      6263)SEA FILE=BIOSIS ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME Q10A
L265(     12557)SEA FILE=BIOSIS ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL C
L266(       766)SEA FILE=BIOSIS ABB=ON  PLU=ON  FLUIMUCIL OR FLUMIL OR FLUPROWI
L267(      7061)SEA FILE=BIOSIS ABB=ON  PLU=ON  MUCOLYTICUM LAPPE OR MUCOLYTIKU
L268(    189835)SEA FILE=BIOSIS ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR 1
L269(     18553)SEA FILE=BIOSIS ABB=ON  PLU=ON  FLAVONOID OR BIOFLAVONOID OR ((
L270(     24840)SEA FILE=BIOSIS ABB=ON  PLU=ON  VITAMIN E OR AQUASOL E OR E MIX
L271(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  RONTEX 201 OR SUNACTIVE VE  OR
L272(      3273)SEA FILE=BIOSIS ABB=ON  PLU=ON  VITAMIN B6 OR ADERMINE OR VITAM
L273(     25903)SEA FILE=BIOSIS ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L GU
L274(       318)SEA FILE=BIOSIS ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR ASCO
L275(      3566)SEA FILE=BIOSIS ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR C
L276(     15732)SEA FILE=BIOSIS ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR CET
L277(     11952)SEA FILE=BIOSIS ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTEN
L278(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE 80S
L279(    103117)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L260 OR L261 OR L262 OR L263 O
L280(     91598)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L269 OR L270 OR L271 OR L272 O
L281(      1187)SEA FILE=BIOSIS ABB=ON  PLU=ON  L279 AND L268 AND L280
L282(   1235218)SEA FILE=BIOSIS ABB=ON  PLU=ON  IMMUNE SYSTEM/CT
L283(        69)SEA FILE=BIOSIS ABB=ON  PLU=ON  L281 AND L282
L284(     26562)SEA FILE=BIOSIS ABB=ON  PLU=ON  NUTRIENT/CT
L285(         3)SEA FILE=BIOSIS ABB=ON  PLU=ON  L283 AND L284
L286(       376)SEA FILE=BIOSIS ABB=ON  PLU=ON  L279(15A) L268 (15A) L280
L287(        19)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L282
L288(         6)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L284
L289(   1099748)SEA FILE=BIOSIS ABB=ON  PLU=ON  34502/CC
L290(        19)SEA FILE=BIOSIS ABB=ON  PLU=ON  L286 AND L289
L291(        31)SEA FILE=BIOSIS ABB=ON  PLU=ON  (L285 OR L287 OR L288 OR L290)
L292         19 SEA ABB=ON  PLU=ON  L291 AND PY<2004
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     FILE 'EMBASE' ENTERED AT 16:58:18 ON 08 DEC 2006
               ACT ARN545EM2A/A
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L293(       419)SEA FILE=EMBASE ABB=ON  PLU=ON  BIOFLAVONOID/CT
L294(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L295(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L296(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L297(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L298(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L299(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L300(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L301(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L302(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L303(        10)SEA FILE=EMBASE ABB=ON  PLU=ON  L301 AND L299 AND L302
L304(     67925)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L294 OR L295 OR L296) OR L300
L305(     68249)SEA FILE=EMBASE ABB=ON  PLU=ON  (L304 OR L293)
L306(     49611)SEA FILE=EMBASE ABB=ON  PLU=ON  (L297 OR L298)
L307(    684624)SEA FILE=EMBASE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L308(    347659)SEA FILE=EMBASE ABB=ON  PLU=ON  NUTRIENT+NT/CT
L309(         4)SEA FILE=EMBASE ABB=ON  PLU=ON  L303 AND L305 AND L306
L310(         4)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L303 OR L309)) AND PY<2004
L311(    169994)SEA FILE=EMBASE ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR 1
L312(      2385)SEA FILE=EMBASE ABB=ON  PLU=ON  IRGANOX E 218 OR JUVELA E OR JU
L313(     36412)SEA FILE=EMBASE ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L GU
L314(        46)SEA FILE=EMBASE ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR ASCO
L315(      1949)SEA FILE=EMBASE ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR C
L316(      8593)SEA FILE=EMBASE ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR CET
L317(      9982)SEA FILE=EMBASE ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTEN
L318(     48101)SEA FILE=EMBASE ABB=ON  PLU=ON  ((L312 OR L313 OR L314 OR L315
L319(        12)SEA FILE=EMBASE ABB=ON  PLU=ON  L293 AND L311(L)DT AND L318(L)D
L320(        12)SEA FILE=EMBASE ABB=ON  PLU=ON  L319 AND ((L307 OR L308))
L321(        99)SEA FILE=EMBASE ABB=ON  PLU=ON  L293(L)DT
L322(        11)SEA FILE=EMBASE ABB=ON  PLU=ON  L321 AND L311(L)DT AND L318(L)D
L323(        16)SEA FILE=EMBASE ABB=ON  PLU=ON  (L310 OR L320 OR L322)
L324          9 SEA ABB=ON  PLU=ON  L323 AND PY<2004
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     FILE 'HCAPLUS' ENTERED AT 16:58:19 ON 08 DEC 2006
                ACT ARN545HC1A/A
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L325(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L326(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L327(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L328(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L329(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L330(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L331(     48589)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L325 OR L326 OR L327 OR L328)
L332(    345705)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L329 OR L330)
L333(     59447)SEA FILE=HCAPLUS ABB=ON  PLU=ON  FLAVONOIDS+OLD,NT/CT
L334(       405)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L333(L)BIOFLAV?/OBI
L335(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L336(      6706)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L335
L337(     53037)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L331 OR L336)
L338(        19)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L328 AND L327 AND L335
L339(        18)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L338 AND PATENT/DT
L340(        17)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L339 AND (PRY<2004 OR AY<2004
L341(         1)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L339 NOT L340
L342(         0)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L341 AND PY<2004
L343(        17)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L340 OR L342)
L344(        45)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L337 AND L332 AND L334
L345(    475791)SEA FILE=HCAPLUS ABB=ON  PLU=ON  IMMUNE SYSTEM+OLD,NT/CT
L346(         4)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L344 AND L345
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L347(         3)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L343 AND L345
L348(      2870)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L337
L349(       133)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L348 AND L332
L350(         4)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L349 AND L334
L351(         5)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L332 AND L334
L352(         5)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L345 AND L337 AND L334
L353(         7)SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L346 OR L347 OR L350 OR L351
L354(         7)SEA FILE=HCAPLUS ABB=ON  PLU=ON  L353 AND PATENT/DT
L355          7 SEA ABB=ON  PLU=ON  L354 AND (PRY<2004 OR AY<2004 OR PY<2004)
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     FILE 'MEDLINE' ENTERED AT 16:58:21 ON 08 DEC 2006
               ACT ARN545MD1A/A
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L356(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  COENZYME Q10/CN
L357(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  GLUTATHIONE/CN
L358(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  3040-38-8/RN
L359(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  A-LIPOIC ACID/CN
L360(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  ZINC/CN
L361(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  SELENIUM/CN
L362(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN E/CN
L363(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN B6/CN
L364(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  VITAMIN C/CN
L365(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  B-CAROTENE/CN
L366(         1)SEA FILE=REGISTRY ABB=ON  PLU=ON  N-ACETYLCYSTEINE/CN
L367(     34026)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOIDS+NT/CT
L368(      4488)SEA FILE=MEDLINE ABB=ON  PLU=ON  L365
L369(     19311)SEA FILE=MEDLINE ABB=ON  PLU=ON  L362
L370(      1156)SEA FILE=MEDLINE ABB=ON  PLU=ON  L363
L371(     28079)SEA FILE=MEDLINE ABB=ON  PLU=ON  L364
L372(     46858)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L360 OR L361)
L373(     37527)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L366 OR L356 OR L357 OR L358
L374(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
L375(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCA
L376(    737843)SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L377(       146)SEA FILE=MEDLINE ABB=ON  PLU=ON  ((L367 OR L368 OR L369 OR L370
L378(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L377 AND L376
L379(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L378 AND PY<2004
L380(      5347)SEA FILE=MEDLINE ABB=ON  PLU=ON  L376 AND ((L367 OR L368 OR L36
L381(       107)SEA FILE=MEDLINE ABB=ON  PLU=ON  L380 AND L372
L382(         7)SEA FILE=MEDLINE ABB=ON  PLU=ON  L381 AND ((L373 OR L374 OR L37
L383          7 SEA ABB=ON  PLU=ON  L379 OR L382
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               ACT ARN545MD2A/A
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L384(      1054)SEA FILE=MEDLINE ABB=ON  PLU=ON  ACETYL L CARNITINE OR ACETYLCA
L385(      1646)SEA FILE=MEDLINE ABB=ON  PLU=ON  LIPOIC ACID OR BYODINOR AL 300
L386(      2025)SEA FILE=MEDLINE ABB=ON  PLU=ON  THIOCTIC ACID OR THIOGAMMA OR
L387(     73792)SEA FILE=MEDLINE ABB=ON  PLU=ON  GLUTATHIONE OR  AGIFUTOL S OR
L388(      6758)SEA FILE=MEDLINE ABB=ON  PLU=ON  COENZYME Q10 OR  CO ENZYME Q10
L389(     12418)SEA FILE=MEDLINE ABB=ON  PLU=ON  N ACETYLCYSTEINE  OR N ACETYL
L390(       709)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLUIMUCIL OR FLUMIL OR FLUPROW
L391(      6869)SEA FILE=MEDLINE ABB=ON  PLU=ON  MUCOLYTICUM LAPPE OR MUCOLYTIK
L392(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  RESPAIRE OR SYNTEMUCOL OR TIXA
L393(    322532)SEA FILE=MEDLINE ABB=ON  PLU=ON  ZINC OR ZN OR ((F)(W)(1000 OR
L394(     19771)SEA FILE=MEDLINE ABB=ON  PLU=ON  FLAVONOID OR BIOFLAVONOID OR (
L395(     25881)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN E OR AQUASOL E OR E MI
L396(         4)SEA FILE=MEDLINE ABB=ON  PLU=ON  RONTEX 201 OR SUNACTIVE VE  OR
L397(      6189)SEA FILE=MEDLINE ABB=ON  PLU=ON  VITAMIN B6 OR ADERMINE OR VITA
L398(     34014)SEA FILE=MEDLINE ABB=ON  PLU=ON  L ASCORBIC ACID  OR 3 KETO L G
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L399(        62)SEA FILE=MEDLINE ABB=ON  PLU=ON  ASCORBUTINA OR ASCORELL OR ASC
L400(      1045)SEA FILE=MEDLINE ABB=ON  PLU=ON  CEBION OR CEBIONE OR CECON OR
L401(     12947)SEA FILE=MEDLINE ABB=ON  PLU=ON  CETANE CAPS TC OR CETEBE OR CE
L402(      7825)SEA FILE=MEDLINE ABB=ON  PLU=ON  BETA(2A)CAROTENE OR BETACAROTE
L403(         2)SEA FILE=MEDLINE ABB=ON  PLU=ON  CAROTABEN OR CAROTENE BASE 80S
L404(         0)SEA FILE=MEDLINE ABB=ON  PLU=ON  LUROTIN OR NSC 62794 OR PROVAT
L405(         1)SEA FILE=MEDLINE ABB=ON  PLU=ON  SERLABO OR SOLATENE
L406(     93944)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L384 OR L385 OR L386 OR L387
L407(     89206)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L394 OR L395 OR L396 OR L397
L408(    631889)SEA FILE=MEDLINE ABB=ON  PLU=ON  FOOD+NT/CT
L409(      1183)SEA FILE=MEDLINE ABB=ON  PLU=ON  L406 AND L407 AND L393
L410(        80)SEA FILE=MEDLINE ABB=ON  PLU=ON  L406/MAJ AND L407/MAJ AND L393
L411(        23)SEA FILE=MEDLINE ABB=ON  PLU=ON  L410 AND L408
L412(    737843)SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE SYSTEM+NT/CT
L413(        57)SEA FILE=MEDLINE ABB=ON  PLU=ON  L409 AND L412
L414(        15)SEA FILE=MEDLINE ABB=ON  PLU=ON  L413 AND L408
L415(         0)SEA FILE=MEDLINE ABB=ON  PLU=ON  L411 AND L412
L416(        18)SEA FILE=MEDLINE ABB=ON  PLU=ON  L406(L)TU AND L407(L)TU AND L3
L417(         0)SEA FILE=MEDLINE ABB=ON  PLU=ON  L416 AND L412
L418(         3)SEA FILE=MEDLINE ABB=ON  PLU=ON  L416 AND L408
L419(        33)SEA FILE=MEDLINE ABB=ON  PLU=ON  (L414 OR L416 OR L418)
L420(        27)SEA FILE=MEDLINE ABB=ON  PLU=ON  L419 AND PY<2004
L421         27 SEA ABB=ON  PLU=ON  (L420 OR L415 OR L417)
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     FILE 'WPIX' ENTERED AT 16:58:23 ON 08 DEC 2006
               ACT ARN545WX1A/A
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L422(       218)SEA FILE=WPIX ABB=ON  PLU=ON  ACETYL L CARNITINE/BI,ABEX OR ACE
L423(      1049)SEA FILE=WPIX ABB=ON  PLU=ON  LIPOIC ACID/BI,ABEX OR BYODINOR A
L424(       157)SEA FILE=WPIX ABB=ON  PLU=ON  THIOCTIC ACID/BI,ABEX OR THIOGAMM
L425(      5016)SEA FILE=WPIX ABB=ON  PLU=ON  GLUTATHIONE/BI,ABEX OR  AGIFUTOL
L426(      1644)SEA FILE=WPIX ABB=ON  PLU=ON  COENZYME Q10/BI,ABEX OR  CO ENZYM
L427(      2859)SEA FILE=WPIX ABB=ON  PLU=ON  N ACETYLCYSTEINE/BI,ABEX  OR N AC
L428(        19)SEA FILE=WPIX ABB=ON  PLU=ON  FLUIMUCIL/BI,ABEX OR FLUMIL/BI,AB
L429(       766)SEA FILE=WPIX ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCO
L430(       766)SEA FILE=WPIX ABB=ON  PLU=ON  MUCOLYTICUM LAPPE/BI,ABEX OR MUCO
L431(         1)SEA FILE=WPIX ABB=ON  PLU=ON  RESPAIRE/BI,ABEX OR SYNTEMUCOL/BI
L432(    215087)SEA FILE=WPIX ABB=ON  PLU=ON  ZINC/BI,ABEX OR ZN/BI,ABEX OR ((F
L433(      2439)SEA FILE=WPIX ABB=ON  PLU=ON  FLAVONOID/BI,ABEX OR BIOFLAVONOID
L434(      7857)SEA FILE=WPIX ABB=ON  PLU=ON  VITAMIN E/BI,ABEX OR AQUASOL E/BI
L435(         0)SEA FILE=WPIX ABB=ON  PLU=ON  RONTEX 201/BI,ABEX OR SUNACTIVE V
L436(      2040)SEA FILE=WPIX ABB=ON  PLU=ON  VITAMIN B6/BI,ABEX OR ADERMINE/BI
L437(     14268)SEA FILE=WPIX ABB=ON  PLU=ON  L ASCORBIC ACID/BI,ABEX  OR 3 KET
L438(         1)SEA FILE=WPIX ABB=ON  PLU=ON  ASCORBUTINA/BI,ABEX OR ASCORELL/B
L439(      2172)SEA FILE=WPIX ABB=ON  PLU=ON  CEBION/BI,ABEX OR CEBIONE/BI,ABEX
L440(      5867)SEA FILE=WPIX ABB=ON  PLU=ON  CETANE CAPS TC/BI,ABEX OR CETEBE/
L441(      2230)SEA FILE=WPIX ABB=ON  PLU=ON  BETA/BI,ABEX(2A)CAROTENE/BI,ABEX
L442(         2)SEA FILE=WPIX ABB=ON  PLU=ON  CAROTABEN/BI,ABEX OR CAROTENE BAS
L443(      9933)SEA FILE=WPIX ABB=ON  PLU=ON  (L422 OR L423 OR L424 OR L425 OR
L444(     30659)SEA FILE=WPIX ABB=ON  PLU=ON  (L433 OR L434 OR L435 OR L436 OR
L445(    353386)SEA FILE=WPIX ABB=ON  PLU=ON  FOOD/BI,ABEX OR CANDY/BI,ABEX OR
L446(       172)SEA FILE=WPIX ABB=ON  PLU=ON  L432 (10A) L443 (10A)L444
L447         18 SEA ABB=ON  PLU=ON  L446 (15A)L445
               ---------

     FILE 'BIOSIS' ENTERED AT 17:01:41 ON 08 DEC 2006
               D QUE L292
L448         19 SEA ABB=ON  PLU=ON  L292 NOT L124
```

```
     FILE 'EMBASE' ENTERED AT 17:02:05 ON 08 DEC 2006
                D QUE L324
L449           9 SEA ABB=ON  PLU=ON  L324 NOT L150

     FILE 'HCAPLUS' ENTERED AT 17:02:29 ON 08 DEC 2006
                D QUE L355
L450           5 SEA ABB=ON  PLU=ON  L355 NOT L175

     FILE 'MEDLINE' ENTERED AT 17:03:06 ON 08 DEC 2006
                D QUE L383
                D QUE L421
L451          32 SEA ABB=ON  PLU=ON  (L383 OR L421) NOT (L199 OR L229)

     FILE 'WPIX' ENTERED AT 17:03:54 ON 08 DEC 2006
                D QUE L447
L452          18 SEA ABB=ON  PLU=ON  L447 NOT L258

     FILE 'MEDLINE, BIOSIS, EMBASE, HCAPLUS, WPIX' ENTERED AT 17:05:06 ON 08
     DEC 2006
L453          79 DUP REM L451 L448 L449 L450 L452 (4 DUPLICATES REMOVED)
=>
```